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EFFECT OF SPECIFIC TREATMENT ON THE PROGNOSIS OF SYPHILIS OF THE CARDIOVASCULAR SYSTEM

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Syphilis of the cardiovascular system is one of the most serious forms of late syphilis, and the question of treatment is consequently of great importance. The methods used in this form of the disease are similar to those employed in other forms, but the results are both less brilliant and less constant. Numerous studies of the prognosis and the results of treatment in cardiovascular syphilis have been published, but few of them are based on a sufficient number of cases or have been carefully enough controlled to make the conclusions reliable. Moreover, in most of the reports, no differentiation is made between simple aortitis and aortic insufficiency or aneurysm, but all agree that the prognosis in simple aortitis is much more favorable than that in the more advanced stages of the disease.

The present discussion will be confined to the treatment of cardiovascular syphilis of the type characterized by either aortic insufficiency or aneurysm. There can be little doubt as to the diagnosis in cases of this type whereas the diagnosis of simple aortitis is quite uncertain. Diagnosis of the latter is based on the symptoms of substernal pain and paroxysmal dyspnea with increased supracardiac dulness, a systolic murmur and roentgen evidence of a widened aorta. All these bits of evidence are extremely unreliable. Keefer and Resnik,[1] in 82 cases of aortic syphilis proved by autopsy, found that paroxysmal dyspnea occurred only when there was aortic insufficiency, aneurysm or hypertension. Substernal pain is not extremely common, and in my series of 99 patients whose aortitis had progressed to aortic insufficiency or aneurysm, there were 31, or almost one third, who were without symptoms referable to the cardiovascular system. It is probable that the proportion of asymptomatic cases in the earlier stages is much higher. Consequently, in only a small proportion of the cases would one be led to suspect the diagnosis by reason of the presence of symptoms.

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1. Keefer, C. S., and Resnik, W. H.: Paroxysmal Dyspnea as a Symptom of Syphilitic Aortitis, Arch. Int. Med. **37**:264 (Feb.) 1926.

Increased width of the aortic shadow in the roentgenogram occurs in diseases other than syphilis, and, moreover, a widening of the shadow does not always mean a dilated aorta. Scott [2] reported that in several of his cases in which the roentgenograms had demonstrated a definitely enlarged aorta, postmortem examination showed no increase in the diameter.

On the other hand, reports of autopsies performed on syphilitic patients by Warthin, Langer and others showed anatomic evidence of aortitis in from 80 to 90 per cent of the cases. The most accurate method of making a diagnosis of simple aortitis would therefore be to assume its presence in every case of late syphilis without regard to symptoms or signs. It is obvious, however, that the condition in the majority of such patients does not develop into serious cardiac disability, and if one does not know the proportion of patients in whom serious lesions develop when treatment is not given, one cannot evaluate the effects of treatment.

The prognosis in syphilitic aortitis with aortic insufficiency or aneurysm is a little more definite but is still quite uncertain. It is difficult to find records of adequate series of patients who have been followed until death and who have not had any specific treatment. In 1911, Bruce [3] reported on 25 patients who had died in the previous thirteen years, with an average duration of life from the onset of symptoms of five and three-tenths years. He does not give the treatment used, but many of his subjects must have died before the days of arsphenamine and consequently must have had only mercury and iodide, and yet the average duration was more than twice as long as that recorded in most of the more recent reports. Leschke [4] stated that most cases terminated within from two to three years, and Hubert [5] gave the average duration from the onset of symptoms as from one and one-half to three years. Scott,[2] in 107 cases, found very few patients who lived more than two years.

The prognosis is generally considered to be quite gloomy after the onset of symptoms if the disease is untreated, but not infrequently patients are discovered who live for many years with symptoms and without treatment. In my series there were two such patients. One was a fisherman, first discovered to have a large aneurysm of the descending aorta in March, 1916. His symptoms of pain in the back

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2. Scott, R. W.: Symptoms and Clinical Course of Syphilitic Aortic Insufficiency, Am. Heart J. **6**:86, 1930.

3. Bruce, J. M.: Clinical Course of Aortic Syphilis, Lancet **2**:73, 1911.

4. Leschke, E.: Discussion of Syphilitic Aortitis, Proc. Roy. Soc. Med. **23**:959, 1930.

5. Hubert, Georg: Zum Prognosenproblem der Aortitis luetica und zur Kritik seiner Lösung, Ztschr. f. Kreislaufforsch. **23**:387, 1931.

and cough had started one year previously. Each year he went to Alaska with the fishing fleet, doing hard manual labor, and finally died in August, 1931, over sixteen years after the onset of symptoms. During this time he had only 11 injections of mercuric salicylate and 8 of neoarsphenamine, all given within the first two years. The other case was that of a woman in whom, in 1915, dyspnea and precordial pain developed. In 1917, she went to Johns Hopkins Hospital, where she was found to have an aortic insufficiency and an aneurysmal dilatation of the aorta. She disappeared in 1929, still with symptoms but still able to work. As far as can be determined from her clinical record and the report of the Johns Hopkins Hospital, she had had no specific treatment.

Since the course and duration of advanced syphilis of the aorta are so variable and uncertain, it is necessary to have long and carefully controlled series of cases if the effect of treatment is to be determined. As stated, there are no reports based on really adequate series in the literature.

Conybeare [6] reported 22 cases of aneurysm of the aorta; 12 of the patients were dead, and 10 were living. Of those who died, three had been treated with 19, 5 and 4 injections of neoarsphenamine. The average duration from the onset of symptoms had been fifteen months in the 9 untreated and twenty-four months in the 3 treated patients. Of the patients living at the time of the report 4 of the 6 treated ones were able to work, while only 1 of the 4 untreated ones could work. The number of patients in this series was too small, and the differences between the treated and the untreated groups were too slight to show definite benefit from treatment.

Cotton [7] treated 58 patients who had aortic insufficiency with one course of from 6 to 8 injections of neoarsphenamine yearly, with inunctions of mercury and with potassium iodide in the intervals. He used as controls fifty-six patients in the same age groups, who were given no specific treatment. In a five-year period of observation, he found a mortality of 24.1 per cent in the treated and 33.9 per cent in the untreated groups. This decrease in mortality of 10 per cent suggests that specific treatment is beneficial, but it is well within the limits of chance variation, and, moreover, no data are given to show that the cases of the treated patients and those of the controls were comparable in severity when treatment was started.

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6. Conybeare, J. J.: The Treatment of Aortic Aneurysm by Antisyphilitic Remedies, Guy's Hosp. Rep. **74**:163, 1924.

7. Cotton, T. F.: Cardio-Aortic Syphilis and Its Treatment, Brit. M. J. **1**:855, 1926.

Hermann and Jamison [8] discussed 100 patients followed for three years. All of the subjects had both aortic insufficiency and congestive cardiac failure. These authors divided their patients into five groups according to treatment, thereby cutting the number of observations in the individual groups to such small values that the results are scarcely significant. However, if the first two groups are combined, as representing patients who have had little or no specific treatment, and the last three are combined, as representing patients who have had much treatment, the findings are: In the group receiving little treatment, 28 of 41 patients died, a mortality of 68 per cent, whereas in the group receiving much treatment, only 32 of 59 patients died, a mortality of 54 per cent. We also find, however, that the average age of the patients receiving little treatment was 47.5 years and that of the ones receiving much treatment was only 42.5 years. A somewhat higher mortality is to be expected in the group receiving little treatment on the basis of the difference in ages alone.

Hazen [9] treated a series of patients with one course of old arsphenamine and one long course of mercuric salicylate after cardiac compensation had been restored. He treated 40 of the patients with aneurysm and left 10 untreated, as controls. The duration of life in the treated patients averaged thirty months, and in the controls, eleven months. Thirty-six patients with aortic insufficiency were treated, and 12 were untreated. The treated patients lived for an average of forty months, and the untreated, thirty-six months. The difference in the duration of the disease in the two groups of cases of aneurysm is considerable, but the control group is altogether too small to justify an accurate estimate of the duration of the untreated disease. In the patients with aortic insufficiency, the difference between the two groups is obviously too small to be significant. Hazen, however, concluded that specific treatment is definitely beneficial in cases of aneurysm and questionably beneficial in cases of aortic insufficiency.

The largest and most carefully studied series is that of Moore, Danglade and Reisinger,[10] who analyzed the results of treatment in 53 cases of aneurysm and 112 of aortic regurgitation. They have divided their patients into 4 groups according to treatment. Group 1 had no or very little treatment; group 2 had the equivalent of one course of an arsenical drug or one long course of a heavy metal (from one and one-half to four months); group 3 had the equivalent of one

8. Hermann, G., and Jamison, C.: The Treatment of Cardiovascular Syphilis with Especial Reference to Aortic Regurgitation with Congestive Heart Failure, Am. J. Syph. **15**:1, 1931.

9. Hazen, H. H.: The Treatment of Cardiovascular Syphilis, Am. J. Syph. **16**:289, 1932.

10. Moore, J. E.; Danglade, J. H., and Reisinger, J. C.: The Treatment of Cardiovascular Syphilis, Arch. Int. Med. **49**:879 (June) 1932.

long course each of an arsenical drug and of a heavy metal (from four to twelve months); patients in group 4 were treated for more than one year and had two courses of an arsenical drug and two of a heavy metal or four of a heavy metal.

The results of this study show that the average duration of life from the onset of symptoms to death or last observation increases from twenty-seven months in group 1 to sixty-eight months in group 4. Of 79 patients in group 1, only 7 were living at the end of the period of observation, a mortality of 91 per cent. In group 4 there were 40 patients, of whom 30 were still living, a mortality of 25 per cent. The average duration from the onset of symptoms to death was twenty-three months in group 1 and forty-five months in group 4.

These results are striking and would seem to indicate a definite improvement in prognosis with proper specific treatment. Before these figures can be taken at their face value, however, it must be shown that the average prognosis in each group was the same before the start of treatment. Moore attempted to do this by presenting figures showing the duration of symptoms, the incidence of congestive cardiac failure and the ability to work before treatment.

There is no significant difference in the duration of symptoms before the onset of treatment. If anything, the symptoms in group 1 were of slightly shorter duration than those in group 4. This, however, has little bearing on prognosis, since in this disorder severe congestive heart failure may appear abruptly.

The figures on congestive heart failure before treatment are presented in a form difficult of interpretation. The incidence of heart failure, however, can be calculated from the tables, and for simplicity I have combined the first two groups of patients as having had little treatment and the last two as having had much treatment. There were 105 patients in the group receiving little treatment, of whom 51 had congestive heart failure when first seen, an incidence of 48.5 per cent. In the group receiving much treatment, 16 of 60 patients or 26.6 per cent had congestive heart failure. There were then almost twice as many cases of congestive heart failure in the group of patients who received little treatment, and hence one would expect a poorer prognosis in this group, regardless of treatment.

In the matter of ability to work before the beginning of treatment, the results are much the same. In the group receiving little treatment, 11 of 69 or 16 per cent were able to work. In the group of patients receiving much treatment 22 of 49, or 45 per cent, could work. Here, again, the patients in the group receiving little treatment seem, on the whole, to be sicker at the start of treatment than those in the groups receiving much treatment.

The division into groups according to treatment is dependent in part on the duration of the treatment, and survival for at least a year is necessary before any patient can be included in group 4. On the other hand, all patients who die within six weeks of the onset of treatment must be placed in group 1. It is evident that this method of grouping is not allowable if the groups are to be compared, for in group 1 the average duration can be much reduced by a few patients who die quickly, whereas in group 4 the shortest possible duration is a full year. The error thus introduced can be eliminated only by entirely excluding from the series all cases in which the patients did not survive for at least a year after the institution of treatment. Such cases were apparently not excluded in Moore's series. He did not give the durations of the individual cases but he stated that the shortest duration was one month from the onset of symptoms to death. The patient who died in one month was obviously included in the mortality of group 1, although his early death was due only to a bad initial prognosis and not to lack of treatment. Of the 72 patients in group 1 who died, 27 died within a year from the onset of symptoms and therefore should have been excluded from the series.

The treatment used by Moore, which will be outlined here, is similar in general form to that used by most other observers. The patient is first treated for heart failure by the usual methods of rest, digitalis and diuretics. When compensation has been fairly well established, a course of intramuscular injections of an insoluble preparation of bismuth is started in doses of 0.1 Gm. every five days. The dose is increased to 0.2 Gm. weekly and potassium iodide is given with this by mouth in increasing doses up to 4 Gm. three times a day. This treatment is continued for from ten to twelve weeks. If satisfactory compensation is not established, the treatment is used repeatedly with intervals of rest between courses of from two to four months. If fair compensation is regained at the end of the first course, bismarsen is started in doses of from 0.05 Gm. to 0.1 Gm. every five days, increasing to 0.2 Gm. every four to seven days. If compensation is good at the end of the course of bismuth, neoarsphenamine may be used in doses carefully increased from 0.05 Gm. to 0.3 Gm. weekly for from ten to twelve injections. Courses of an arsenical and heavy metal are then alternated without rest for at least two years, after which treatment is continued indefinitely with rest periods between courses.

In addition to an increase in the span of life obtained by proper specific treatment, most observers report an almost miraculous relief of symptoms. Brooks [11] even stated that for any severity of heart lesion

11. Brooks, H.: The Treatment of Cardiovascular Syphilis in Contributions to Medical Science, dedicated to Aldred Scott Warthin; edited by W. J. Stone, Ann Arbor, Mich., George Wahr, 1927, p. 117.

or any degree of disability, the prognosis with proper treatment is far better if syphilis is the cause of the heart disease than if any other pathologic condition is the cause of it. This remarkable relief of symptoms has not been evident in my series except in a few cases. In 16 cases in groups 3 and 4 on which data are available, there was some subjective improvement in 3 but no change in 13. In untreated patients, a rapid improvement in symptoms occasionally occurs.

The present series of cases is too small to be of much statistical value but is of interest because the results correspond in several particulars with those of Moore, Danglade and Reisinger. Table 1 presents a few of the general facts relating to my series in comparison with those recorded by Moore.

TABLE 1.—*General Comparison of the Present Series and That of Moore*

	Present Series	Moore's Series
Number of patients	99	165
Males, per cent	81	80
Average age, years	51	45
Duration of infection, years	24	21
Positive Wassermann tests, per cent	93	93
Asymptomatic cases, per cent	31	12
Cases with aneurysm, per cent	18	31

TABLE 2.—*Duration of Life in Months from Onset of Symptoms*

	Little Treatment	Much Treatment
Present series	20	42
Moore's series	23	47

It will be seen in the table that there is a fairly close agreement in the two sets of figures except in the incidence of asymptomatic cases and those in which aneurysm was present. The asymptomatic cases are more numerous, and the aneurysms fewer in my series than in Moore's.

In table 2, a comparison is made between my series and Moore's in regard to the duration of life and the amount of treatment. The cases were grouped according to the four classes of treatment of Moore, but because the numbers were small, the first two and the last two groups were taken together as indicating little and much treatment. A similar combination was made from Moore's figures for comparison.

The figures are practically identical. It must be pointed out, however, that of the 28 patients in my group receiving little treatment, there were 13 who did not survive long enough to be placed in the group receiving much treatment. These patients should have been omitted from the series, as death within four months from the beginning of treatment is evidence of original poor prognosis rather than of lack of treatment. These patients have been included only for comparison with Moore's series.

The relation between congestive heart failure before treatment was started, the amount of treatment and the number of patients who died is shown in table 3. All patients who were not followed after the commencement of treatment for at least a year or until death have been excluded.

In the group of 41 patients receiving little treatment there were 18 with heart failure before treatment, or 44 per cent. In the group of 20 patients receiving much treatment there was only 1 or 5 per cent, with heart failure. As in Moore's series, there was a definitely higher incidence of heart failure before treatment in the group that received little treatment.

The prognostic significance of heart failure before treatment is started is indicated in table 3, since 17 of the 19 patients with heart failure died, while only 15 of the 42 patients without heart failure died.

TABLE 3.—*Prognostic Significance of Heart Failure Before Treatment Is Started*

	No Heart Failure	Heart Failure
Little treatment		
Living	11	1
Dead	12	17
Much treatment		
Living	16	1
Dead	3	0

An attempt was made to correlate age, ability to work and occupation with prognosis and the amount of treatment, but the data were too few and too inexact to be of value.

In addition to the duration of the disease until death, Moore also noted the duration, in living patients, from the onset of symptoms until the time at which his final collection of data was made. Such figures are without significance, since any difference in the various groups would mean only that symptoms had begun earlier in one group than in another and would bear no relation to treatment.

Although my data in several ways confirm those of Moore, I do not believe that they justify any conclusions as to the effect of treatment on the prognosis in aortic insufficiency and aneurysm. In nearly every case, an attempt was made to carry out some sort of specific treatment throughout the entire period of observation. In the group receiving little treatment, this plan failed largely because the patients either died too soon or were completely uncooperative. If death occurred before adequate treatment could be given, it was only because of a bad initial prognosis. In patients who are uncooperative in the matter of treatment, a lack of cooperation in the restriction of activities and hence a

poorer prognosis are to be expected. It is apparent that the groups receiving little and much treatment did not have the same prognosis at the beginning of treatment, and that they consequently cannot be legitimately compared, nor can the differences noted be ascribed to the effects of treatment.

It appears inevitable that substantially the same results will be obtained in every series of cases that is analyzed by noting the duration of the disease with different amounts of treatment, provided that the amount of treatment given is dependent on time, as it must be in all antisyphilitic therapy.

COMMENT

From the evidence at hand it cannot be demonstrated that specific treatment has any effect on the course or duration of syphilitic aortic insufficiency or aneurysm. There is a vast difference in the duration of life of individual patients, regardless of treatment, which does not necessarily parallel the apparent severity of the lesion or the gravity of the symptoms. The only method by which the effect of treatment can be definitely assessed is by careful observation of a large number of patients until death, half the series receiving specific treatment and the other half no specific treatment. The patients used as controls must be selected, before treatment is started, by some completely arbitrary and inflexible system. The simplest method is probably that of choosing every alternate new patient as a control, regardless of the stage or the severity of the disease. Thus a patient who appears in severe decompensation and dies within a day should be considered as a failure of specific treatment if he chances to fall within the group that is to be treated. If this is done, the groups of treated and untreated patients will be, in the long run, strictly comparable, and any differences noted in the prognosis of the two groups can be definitely ascribed to the effects of treatment. Up to the present time no published series has fulfilled these qualifications, and the beneficial effect of specific treatment on the prognosis of syphilitic aortic insufficiency and aneurysm remains unproved.

ACNE NECROTICA MILIARIS OF THE SCALP

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For a number of years I have been puzzled by a not uncommon disease of the scalp of which I could neither find a published description nor obtain a satisfactory explanation when I questioned colleagues in regard to it.

The symptoms are always the same. The patients complain of itching of the scalp, which recurs at short intervals, and which is intense enough to be a considerable annoyance. Some patients complain only of the itching, but most of them volunteer the information that small "lumps" have appeared in various locations. Examination of the scalp discloses isolated, minute scabs, rarely larger than the head of a pin and often smaller. These lesions are usually few; there may be only two or three of them, and I have rarely seen more than a dozen at any one time. The lesions are located at the opening of the hair follicles. For a long time I was unable to find any other lesions, and was almost convinced that they were simply excoriations from scratching with the finger-nails or a comb. However, after repeated searches, I have recently been able to find in a few patients, minute, tense vesicopustules, which are probably the primary lesions in all cases. These vesicles are undoubtedly the points of maximum itching when they are developing, and they are almost always ruptured by scratching before, or as soon as, they are fully formed.

Most of the patients are of middle age, although young and old persons are also affected. The sexes are affected in about equal numbers.

In the patients I have seen there is often no other evident disease of the scalp accompanying this condition. The scalp may otherwise be practically normal. There is often seborrhea or pityriasis of the scalp of the usual type in the younger patients. Apparently there is no part of the scalp that may not be affected, but lesions are found more frequently on the posterior half.

The individual lesions disappear in a week or two, but new ones appear in about the same number, so that some are present almost continuously.

Patients are not easily followed, as the disease is not serious enough for them to think it worth while to be under observation for long periods. In one of my patients, who continued to consult me for other

conditions, new lesions are still appearing nine years after I first saw her. She was 20 when first seen, the youngest patient I have had with the disease.

Whether the lesions leave permanent scars I do not know. They are so small and usually so few that it is almost impossible to identify their site after they have disappeared.

Not long ago, in reading two of Sabouraud's[1] recent books, I encountered an explanation of this disease, to which it seems worth while to call attention. Sabouraud comments: "The physician rarely understands this combination of symptoms."[2] "If the dermatologist who examines the patient does not know these cases well, it is inevitable that he should class them as ordinary pityriasis and treat them as such, without effect.[3] . . . They are constantly diagnosed as eczema by the immense majority of dermatologists."[4]

He interpreted the disease as an abortive or diminutive form of acne necrotica, called it acne necrotia miliaris, and described it as follows:

> Pruritus is the dominant symptom. The patient complains that his head is hot and that it itches continuously. He is constantly putting his hand on his head. The itching is most marked during the night, during digestion and during intellectual work at the desk.
>
> The physician consulted sees nothing at first and he will examine whole areas of the scalp without seeing anything abnormal. Nevertheless, an examination made with knowledge of what to look for, or a more careful one, will show little pustules not so large as the head of a small pin, which are transformed into crusts the next day. Instructed by this discovery he will be able to discover in a hundred different points minute crusts at the base of a hair, which are the result of still smaller but similar pustules.[2]

In my experience, fifteen or twenty such crusts are a large number to find on the scalp at any one time, and the vesicles are difficult to find. I may have overlooked them, for Sabouraud says that they cannot be seen without the aid of a magnifying glass, which I have not ordinarily used in my examinations.

I have not been able to have any histologic examinations made, but Sabouraud stated that the structure is that of acne necrotica.[4] According to him, the bacteriologic observations are also those of acne necrotica. If the pityriasic scales in such a case are planted, there is always a growth of a large number of colonies of Staphylococcus aureus among

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1. (*a*) Sabouraud, R.: Pyodermites et eczémas, Paris, Masson et Cie., 1928; (*b*) Diagnostic et traitement des affectiones du cuir chevalu, Paris, Masson et Cie., 1932.
2. Sabouraud (footnote 1*b*, p. 365).
3. Sabouraud (footnote 1*a*, p. 200).
4. Sabouraud (footnote 1*a*, p. 207).

the profusion of those of Coccus polymorphus, and if the minute crust is planted with care to avoid the scales, nearly pure cultures of Staphylococcus aureus are obtained.

On these observations he bases his conclusion that these small lesions are "an eruption of minute microscopic lesions of the follicular orifices, or, since it is the same thing, a rudimentary form of acne necrotica" [5] which should be classed not as eczema but as "eczematoid staphylococcia." [4]

Whether or not this is the correct explanation, I am unable to say. It seems rather strange that an infection with Staphylococcus aureus should continue for so long without causing any larger pustules, and I have never seen lesions of any other sort develop.

Sabouraud says that the application of sulphur is the most efficient treatment, but that the reduction of carbohydrates in the diet and general hygienic measures are necessary to effect a cure.

I have never been sure that my attempts at treatment have accomplished much. Frequent shampoos and daily application of a dilute alcoholic solution of iodine to the individual spots have relieved the itching to some extent.

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5. Sabouraud (footnote 1*b*, p. 205).

PITYRIASIS ROSEA

AN ACCOUNT OF SUGGESTED CONTAGIOUSNESS AND OF ATTEMPTED EXPERIMENTAL TRANSMISSION

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In the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY, Lord[1] reported the simultaneous appearance of pityriasis rosea in two members of a family, offering this finding in support of the infectious theory of the disease. Lord reviewed the literature on the subject, citing eighteen instances of pityriasis occurring apparently as a result of close association.

We are third year medical students, closely associated through teaming together in assigned work. In both of us recently there developed primary plaques followed by numerous cutaneous lesions. The disorder was diagnosed in the dermatologic division of the clinic as pityriasis rosea. We work together on patients assigned to us in the clinic but have not had contact, to the best of our knowledge, with a patient having pityriasis rosea. We do not room together.

The primary plaque appeared on one of us one week before it appeared on the other. In the one of us who first presented evidence of the disease cutaneous lesions similar to those of the present attack developed two years previously; these lesions were diagnosed at the time by a dermatologist as pityriasis rosea. The present manifestation of the disease may therefore be considered as a second attack occurring in one of us after a lapse of two years.

Eighteen cases of pityriasis rosea, including the results of experimental work were reported by Thompson and Cumings.[2] They disagreed with Benedek[3] as to the theory that a constant fungoid endoparasite is responsible for the disease. Thompson and Cumings[2] injected Berkefeld filtrates of a saline suspension of scrapings from a "herald patch" intradermally into patients having pityriasis rosea and into others

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1. Lord, L. W.: Etiology of Pityriasis Rosea, Arch. Dermat. & Syph. **26**:981 (Dec.) 1932.

2. Thompson, M. S., and Cumings, J. N.: Brit. J. Dermat. **43**:617, 1931.

3. Benedek, T.: Schizosaccharomycosis: II. Clinical Forms: Pityriasis Rosea of Gilbert—Its Etiology and Pathology, Arch. Dermat. & Syph. **26**:397 (Sept.) 1932; Acta dermat.-venerol. **12**:38, 1931.

convalescent from the disease. They found, briefly, that in fifteen of the eighteen patients having the disease a positive reaction occurred within four hours and disappeared in approximately twenty-four hours. The positive reaction is described as a local, circumscribed cutaneous hyperemia of an urticarial nature. No reactions characterized as positive occurred in persons definitely convalescent from pityriasis rosea or in healthy persons. No lesion resembling those characteristic of pityriasis developed in any subject.

We curetted the cutaneous lesions diagnosed as characteristic of pityriasis rosea with a sharp, sterile scalpel and made a suspension of the scrapings in sterile Ringer's solution. This suspension, a visibly heavy one, we injected into ourselves intradermally (in regions free from cutaneous lesions), and into two healthy volunteers as well as into two rabbits in which the skin over the areas inoculated had been freed from fur. Some of the material was, in addition, placed on scarified rabbit skin.

We failed to obtain any local reaction following the absorption of the intradermal injection in ourselves during the acute stage of the disease, in the healthy volunteers or in the two rabbits.

SUMMARY

An account is given of the appearance of pityriasis rosea in two medical students who were closely associated in their work but who knew of no contact with the disease. The cutaneous lesions characteristic of pityriasis rosea appeared in one of the students as a recurrence of the disease following an interval of two years, and the eruption occurred a week prior to the first appearance of the lesions in his associate.

An experimental attempt at transmission of the disease by intradermal injection of a heavy suspension of scrapings from the characteristic cutaneous lesions into the skin of the two students having the disease, into two healthy subjects and into two rabbits failed to produce any local or general response.

FUNGICIDAL ACTION OF SOME COMMON DISINFECTANTS ON TWO DERMATOPHYTES

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The standardization of disinfectants has been one of the problems claiming the attention of workers in many laboratories. Some of these investigations have found their way into publications; many have not been reported. The comparative study of disinfectants has been of considerable importance, particularly when associated with chemical studies of different groups of bactericides in an attempt to elaborate new compounds effective as bactericides and nontoxic to the body tissues. Although a germicide which has been shown to be very effective under the conditions of a laboratory experiment may, for one reason or another, be unsuitable for clinical use, the laboratory findings in general provide a useful guide to its relative value.

The methods most used in determining the phenol coefficient are modifications of the Rideal-Walker method [1] proposed in 1903. It will be unnecessary to describe here either this method or its modifications as proposed by Anderson and McClintic,[2] Reddish [3] and others. In order to duplicate results, the same micro-organism must always be used. The comparatively stable Hopkins strain of Bacillus typhosus is a suitable and satisfactory test organism in such experiments. On the species and even the strain of micro-organism depends to a considerable degree the value of the phenol coefficient as one is able to measure it. The dilution of a given germicide which kills one species of bacillus may prove to exert only a restraining influence or to be harmless toward one of a different group. Even greater differences are to be expected between bacteria and fungi.

It seems important, therefore, that in a search for effective control methods in the increasingly important group of fungus infections one should attempt to test some of the common disinfectants, using fungi

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From the College of Physicians and Surgeons, Columbia University.

Read before the Laboratory Section of the American Public Health Association, Oct. 26, 1932.

1. Rideal, S., and Walker, J. T. A.: J. Roy. San. Inst. **24**:424, 1903.

2. Anderson, J. F., and McClintic, T. B.: Method of Standardizing Disinfectants with and without Organic Materials, U. S. Pub. Health Service, Hyg. Lab. Bull. no. 82, 1912.

3. Reddish, G. F.: Phenol Coefficient. Department of Agriculture Method, J. Bact. **19**:37 (Jan.) 1930.

as the test organisms. A few papers have appeared dealing with the effect of various chemical substances on fungi. In 1922, Schamberg and Kolmer [4] studied the effect of various dyes and chemicals on three ringworm fungi and found mercurophen (sodium oxymercury-*o*-nitrophenolate) and mercuric chloride to be most effective, with brilliant green and crystal violet the best of the dyes tested. They defined the fungistatic property as the ability of a chemical to inhibit growth of a fungus, and used both the fungistatic and the fungicidal test; the latter, however, as they performed it, is open to the objection that they failed to take into account the possible restraining influence of the medicament carried over by the loop. Their subcultures were made directly onto Sabouraud's maltose agar. Their tests were not, therefore, exact measures of the killing power of the drugs used, since enough of such a poison as mercuric chloride can be carried over, even in transferring the spores into a broth tube, to inhibit their growth without necessarily killing them. Myers and Thienes,[5] in 1925, while testing the effect of certain volatile oils and stearoptens on a species of Monilia encountered in an epidemic among fruit canners, overcame the difficulty by making subcultures in broth before the transfer to agar slants. They found thymol the most effective agent tested.

The danger of confusing the restraining or bacteriostatic effect with the bactericidal effect must be recognized. Anderson and McClintic,[2] in 1912, warned workers that the method of testing that they outlined might not be suitable for such materials as mercuric chloride, which is wholly unrelated to phenol. Silver salts, iodine and some of the dyes also have high bacteriostatic properties. This principle has been reaffirmed and emphasized since that time. Shippen [6] and Leonard [7] have recommended the making of subtransfers to determine when growth has been merely restrained by the small amount of the germicide accidentally carried over in the transfer loop.

Kingery and Adkisson [8] made fungicidal and fungistatic tests on several types of fungicides, but without using the transfer test for growth-restraining effect. They report that thymol was effective in

4. Schamberg, J. F., and Kolmer, J. A.: Studies in the Chemotherapy of Fungous Infections. I. The Fungistatic and Fungicidal Activity of Various Dyes and Medicaments, Arch. Dermat. & Syph. **6**:746 (Dec.) 1922.

5. Myers, H. B., and Thienes, C. H.: Fungicidal Activity of Certain Oils and Stearoptens: Their Comparative Toxicity on a Pathogenic Yeast-Like Organism, J. A. M. A. **84**:1985 (June 27) 1925.

6. Shippen, L. P.: A Fallacy in the Standard Methods of Examining Disinfectants, Am. J. Pub. Health **18**:1231 (Oct.) 1928.

7. Leonard, George F.: Limitations of Phenol Coefficient Tests in Determining Germicidal Activities, J. Infect. Dis. **48**:358 (April) 1931.

8. Kingery, L. B., and Adkisson, A.: Certain Volatile Oils and Stearoptens as Fungicides, Arch. Dermat. & Syph. **17**:499 (April) 1928.

killing the fungi they used when incorporated in a culture medium in a dilution of 1:6,250, while iodine was effective only in a dilution of 1:2,000. Schamberg, Brown and Harkins,[9] on the other hand, in 1931, reported that metallic iodine is the most effective fungicide tried, killing Epidermophyton inguinale after fifteen minutes' exposure to a 1:85,000 dilution, and that compound solution of iodine, U. S. P., kills in a dilution of 1:500,000. However, they did not use the transfer test, and E. inguinale is probably an especially susceptible organism. Drake and Dunning[10] studied a series of mercury derivatives and found the sodium salt of *mono*-hydroxy-mercuri-*di*-iodo-resorcin-sulphonphthalein ($C_{19}H_{10}O_8I_2SHg_2$) to be the best from a therapeutic point of view.

It appears that the discrepancies and contradictions in these reports on the fungicidal powers of medicaments are due in the main to the different organisms used and to the differences and faults of technic, particularly the failure to distinguish between fungicidal and fungistatic properties of the fungicide tested.

This is a report of studies carried on intermittently during the past two years to determine the effect of some of the more common disinfectants on various pathogenic fungi. It is believed that the methods used in this study overcome some of the difficulties experienced by other investigators of the effect of disinfectants on fungi. No standard test organism is proposed for the reason that different pathogenic fungi vary in their response to fungicides, and this paper is concerned not with the standardization of disinfectants, a problem already adequately taken care of, but with the effect of a variety of fungicides on different dermatophytes. The different fungicides tested are for the sake of convenience evaluated in terms of the "phenol coefficient," although such values hold only for the organisms tested.

Fungi lend themselves less readily to this sort of investigation than do bacteria. The dermatophytes are variable, and it is doubtful whether a strain would retain its characters over a long period of years. During this investigation it was found at one time that the strain of Trichophyton gypseum used had become much more susceptible to fungicides, probably because in carrying the strain along transfers were made at one time from too old cultures. It was necessary to go back to the original stock strain for subsequent transfers. A second difficulty arises when one attempts to make a spore suspension. The spores are not at once wetted by the salt solution in which they are suspended, and consequently groups of spores are liable to cling together around an air bubble and so give a misleading reading because of incomplete exposure.

9. Schamberg, J. F.; Brown, H., and Harkins, M. J.: The Chemotherapy of Ringworm Infections, Arch. Dermat. & Syph. **24**:1033 (Dec.) 1931.

10. Drake, W. E., and Dunning, F.: Organic Antiseptics. A Bacteriologic Study of a New Series, J. Infect. Dis. **48**:366 (April) 1931.

A third disadvantage in the use of fungi is the time required for reading the subcultures. At least two weeks must be allowed before a final negative reading is made.

A strain of Monilia albicans and one of Trichophyton gypseum were used as the test organisms in the following experiments. In a few instances other fungi and other strains of T. gypseum were used for comparison. Spore suspensions of T. gypseum were made from ten day cultures on honey agar slants. The growth was removed with a sterile needle to sterile physiologic solution of sodium chloride and shaken for a few minutes. This suspension was then filtered through several thicknesses of sterile cheesecloth, and the filtrate was adjusted so that there were approximately 10,000 spores per cubic millimeter. Spore suspensions of Monilia albicans were made from forty-eight hour cultures in the same manner, except that it was not found necessary to filter. Microscopic examination usually

Fungicidal Action of Various Disinfectants

Fungicide	Phenol Coefficient	
	T. gypseum	M. albicans
Iodine (from potassium iodide solution)	3,125	3,600
Iodine (from tincture)	2,974	3,480
Sodium hypochlorite (from surgical solution of chlorinated soda)	2,338	2,090
Sodium ethyl mercurithiosalicylate	146	
Hexylresorcinol	78	67
Mercuric chloride	74	76
Selenium sulphide	44	6
Thymol	26	17
Phenyl-mercuric-nitrate	..	14
Malachite green	..	10
Gentian violet	4	7
Potassium permanganate	..	7
Salicylic acid	1	7
Compound solution of cresol	1	3
Tri-ethanolamine polysulphide (5.5% sulphur)	2.5	
Formaldehyde	2.5	2.5
Copper acetate	..	2
Benzoic acid	1	2
Phenol	1	1
Sodium sulphide	..	0.4

revealed the presence of a few short hyphal elements in addition to the spores, but it was felt that these did not interfere with the accuracy of the test. From this point, the procedure was the same with the two fungi. Ten cubic centimeters of each of three dilutions of the fungicides was placed in a test tube in a water bath at 20 C. One tenth of a cubic centimeter of the spore suspension was placed in each tube, which was immediately shaken and replaced in the water bath. Transfers to dextrose broth were made after one minute, five minutes and thirty minutes. Subcultures from these were made when this was required by the nature of the fungicide used, usually by flaming the mouth of the tube and pouring about 1 cc. into a second tube of broth. It was found necessary to apply this transfer test in the case of disinfectants containing silver, mercury and iodine, and in the case of dyes. Cultures and subcultures were read for growth after a few days and again after at least two weeks. The phenol coefficient was determined in the usual way from the highest killing dilution at the five and thirty minute intervals. The accompanying table gives the values obtained by this method.

Iodine is highly fungicidal, with a phenol coefficient of about 3,000. It was tested by diluting a 3 per cent tincture and also by diluting compound solution of iodine, U. S. P. Sodium hypochlorite as used in surgical solution of chlorinated soda is highly fungicidal when freshly made up, with a phenol coefficient of about 2,000 estimated on the basis of available chlorine. Mercuric chloride is also a good fungicide. Sulphur is disappointing. Two colloidal preparations of sulphur were used. It is surprising to find copper sulphate so ineffective. It is used in the preparation of Bordeaux mixture, which controls fungous diseases of plants and is effective in a dilution of 1 : 1,000,000 in preventing the growth of certain algae in reservoirs. Park and Williams state that it kills typhoid bacilli in twenty-four hours in a dilution of 1 : 400,000. Under the conditions of this experiment, spores of T. gypseum and M. albicans exposed for thirty minutes to a dilution of 1 part of copper sulphate to 4 parts of water readily grew when transferred to broth. This was tried repeatedly and was further checked by the use of spores of other fungi which also survived this treatment. The failure to kill cannot be due to the coagulating effect of the strong solution, which might conceivably act to preserve the viability of the spore, because copper sulphate was tested first in dilutions of 1 : 100, 1 : 500, 1 : 1,000 and 1 : 2,000. None of these dilutions killed the spores of T. gypseum after thirty minutes' exposure. There is probably a time factor here which was not investigated. A colloidal preparation of copper also tested did not appear to be of value under the conditions of the experiment. This test is not, however, a suitable method of evaluating colloidal fungicides. Both copper and sulphur are useful in controlling fungi which cause diseases of cultivated plants. Their function here is that of a protectant, as Whetzel and McCallan [11] have clearly pointed out. Careful studies of these fungicides have been made by McCallan [12] and McCallan and Wilcoxon,[13] who also give reviews of the literature. They have shown that the toxic elements, hydrogen sulphide and free copper are liberated from insoluble sulphur and from copper compounds by secretions from the spores of fungi falling on the sprayed leaves.

A dilution of 1 part of sodium thiosulphate to 2 parts of water did not kill the spores after thirty minutes. Spores also withstood thirty

11. Whetzel, H. H., and McCallan, S. E. A.: Studies on Fungicides: I. Concepts and Terminology, Cornell Univ. Agric. Exper. Station Mem. **128**:1 (May) 1930.

12. McCallan, S. E. A.: Studies on Fungicides: III. The Solvent Action of Spore Excretions and Other Agencies on Protective Copper Fungicides, Cornell Univ. Agric. Exper. Station Mem. **128**:25 (May) 1930.

13. McCallan, S. E. A., and Wilcoxon, F.: The Fungicidal Action of Sulphur: II. The Production of Hydrogen Sulphide by Sulphured Leaves and Spores and Its Toxicity to Spores, Contrib. Boyce-Thompson Inst. **3**:13 (March) 1931.

minutes' exposure to a saturated solution of sodium chloride. The resistance of spores of T. gypseum to alcohol is of interest. Exposure for thirty minutes to 50 per cent alcohol did not kill them, although all appeared to have been killed after thirty minutes in 85 per cent alcohol.

Some interesting relative values appear when one attempts to compute from these data a therapeutic index for some of the common disinfectants. This is done by dividing the effective strength of the fungicide by the usual therapeutic strength. Such an index is only approximate, and too much importance should not be attached to it. However, it provides the fairest basis for comparison. It gives to iodine an index of approximately 17,000, to mercuric chloride one of 4, to phenol one of 3.5 and to compound solution of cresol one of about 1.5.

A control was provided in every set of experiments by the use of phenol. In this way, each day's or half-day's experiment consisted of two tests of both organisms in phenol and in four other fungicides. This meant the use of 72 seeding tubes and of 216 broth culture tubes, or, when it was necessary to add the transfer test, of 432 culture tubes each day. The phenol coefficient of each fungicide was determined after several repetitions of the experiment in which the proper dilutions were found in preliminary tests, and later satisfactory readings were made and averaged.

Readings for phenol were uniform; those for some of the other fungicides, particularly such preparations as mercuric chloride and iodine in which the dilution was high, showed considerable variation. The values for the phenol coefficient when T. gypseum and M. albicans were used as test organisms should be considered as only approximate, and as affording no more than a suggestion for the therapeutic use of fungicides. For example, salicylic and benzoic acids, which have proved valuable in the treatment of trichophytosis, have low phenol coefficients. Gould and Carter,[14] however, showed that benzoic and salicylic acids when combined are much more effective in inhibiting growth of fungi than either alone. Sharlit and Muskablit [15] claim for them much higher fungistatic properties when they are incorporated in a membrane of collodion lining the test tube than when they are dispersed through the culture medium. Their value depends largely on their action on the integument, not entirely on their fungicidal properties. Gentian violet, too, is of greater usefulness than one might suppose from its relatively low phenol coefficient. Conversely, iodine, with its superior fungicidal properties, is of therapeutic value only so far as it can penetrate to

14. Gould, A., and Carter, E.: Fungistasis in Ringworm of the Toes and Feet, Arch. Dermat. & Syph. **22**:225 (Aug.) 1930.

15. Sharlit, H., and Muskablit, E.: A Search for a New Method for the Determination of the Fungicidal Action of Chemicals, Arch. Dermat. & Syph **25**:615 (April) 1932.

the layers in which the fungus is growing. In the case of all these fungicides the long continued application to the infected skin and the fungistatic action do, of course, play extremely important rôles in effecting cures. It is also true that a chemical which can be dusted on the skin or applied in solution and allowed to dry, if it is nonirritating, may be effective in preventing infection even though it has a very low phenol coefficient. Used in this manner, a fungicide functions as a protectant, much as do the copper and sulphur dusts used to control plant pathogens.

It may be objected that in these experiments one is dealing with fungus spores while the fungus exists in the skin in a vegetative state. The use of fungus spores in the test is justified because they more nearly resemble the vegetative cells found in the skin than do the young, thin-walled hyphal tips on which one would have to depend in testing the effect of fungicides on the purely vegetative forms of the fungus. The spores and the short hyphal elements which function as spores provide the most abundant and uniform material for testing. It is frankly recognized that one cannot duplicate in the test tube experiment the conditions existing in the skin. Comparative studies cannot be made by exposing infected bits of skin to the different dilutions of the fungicides, because it is impossible to standardize the infected material. An increase of a few cell layers in thickness of some pieces, a different degree of vegetative development or a deeper penetration in some pieces would invalidate results.

The clinical test is necessarily the final test of the value of a fungicide intended to kill the dermatophyte in the skin. Nevertheless, one would not recommend for the sterilization of skin surfaces substances making such a poor showing in this test as do sodium thiosulphate, copper sulphate and some of the higher priced and diluted advertised antiseptics. The only claim made for this study is that it provides a laboratory basis for a comparison of different fungicides in their effect on two unrelated pathogenic fungi.

SUMMARY

A number of disinfectants were tested for their ability to kill spore suspensions of T. gypseum and M. albicans. The method of study is described and the results, expressed in terms of the phenol coefficients, are listed in a table. Of the substances studied, iodine and chlorine (surgical solution of chlorinated soda) have the highest phenol coefficients when tested by this method.

SKIN DISEASES IN THE NEW WORLD

FROM OVIEDO Y VALDES, 1478-1557

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Of the earliest historians of America, Gonzalo Fernandez de Oviedo y Valdes, Fray Bartolome de las Casas and Fray Bernardino de Sahagun are among the most scholarly and the most accurate. Contemporaries of Columbus, they came to the New World early in the sixteenth century, and were participants in the few joys and many vicissitudes of the conquest and colonization. The marvels of the new lands and the courage and adventurous spirit of the conquistadores were theirs, as well as the gift to record their impressions and adventures in the most flourishing Spanish of the epoch.

The "Historia general y natural de las Indias, islas y tierra firma del Mar Oceano" was divided by Fernandez de Oviedo y Valdes into fifty books, of which the first nineteen were published in 1535 and the twentieth in 1547. But it was not until 1851 that the Spanish Academy of Letters, represented by one of its most famous men, Don José Amador de los Rios, after many years of research, gathered all the original manuscripts of Oviedo y Valdes and published them in the original sixteenth century Spanish, thus providing one of the most delightful as well as one of the most accurate sources of information of what happened in this part of the world in the early romantic days of its discovery.

Gonzalo Fernandez de Oviedo Valdes was born in Madrid in 1478, and entered the service of their Catholic Majesties at the age of 13 as chamber page of Prince Don Juan. After the premature death of the heir to the throne, Oviedo y Valdes saw military service in Italy and in France, and in 1514 came to America as inspector of the gold foundries of Terra Firma and *cronista* of the Spanish crown. His trip from Spain was made with the expedition of Pedrarias Davila, who was to become governor general of the continental lands. Oviedo y Valdes was then 36 years old.

The alleged cruelties and tyrannical government of Davila sent Oviedo back to Spain six years later, but disease and bad weather kept him in Cuba, Puerto Rico and Santo Domingo until 1523, when he finally reached Spain.

In 1525, after obtaining from the King the dismissal of Pedrarias Davila, he came back as governor general of Cartagena in South

America. Finally, after many hardships in which he lost all his capital and his grants in Terra Firma, he retired to Santo Domingo with his family, devoting his entire time to his writings, particularly to his "Historia general y natural de las Indias," of which he saw the first part published. In 1556, he began the publication of the second part, but was cut short in the midst of his work by disease, which ended in death in 1557, in his seventy-ninth year.

It is to be noted that this great soldier and historian was never on good terms with his contemporary, Fray Bartolome de las Casas, and although both tried to protect the Indians and to secure kind and fair treatment for them, they seemed to see their duties in a different light. To Oviedo's accusations of cruelties against Pedrarias Davila, las Casas responded with accusations of greed against Oviedo.

The passages and descriptions of medical interest in Oviedo's book are many and varied. Some of them are merely of passing importance, particularly those which refer to the therapeutics of the natives, but others are of great historical value, for his observations were personal and made at the time when the Indian native was entirely unspoiled by civilization and therefore uninfluenced by any outside action or thought.

Of foremost interest are some of his well known citations concerning the existence of syphilis among the Indians and its transmission to the Spaniards, who in turn carried it to Spain and thence to the rest of the world. Many of his words in this connection have been previously quoted by most historians of syphilis, but in the careful reading of the four folio volumes of Oviedo's book, one finds so much force in the statements as to the existence of the disease among the Indians that no review of his work would be complete without them. Of course the question of the identification of *buas,* yaws or frambesia and syphilis, and whether *buas* was in reality frambesia which turned into syphilis in the virgin soil of the white man, cannot be dwelt on here.

Early in the Prooemium Oviedo [1a] wrote:

> And I shall tell who were some of the gentlemen and nobles who came among the first conquerors and pacifiers . . . and of the origin of the disease of the *buas* and of four very notable things which occurred in the year one thousand four hundred and ninety-two, when these Indies were discovered.

And later he said: [1b]

> These Christians, the first colonizers of the island (Hispaniola) suffered many hardships from the chigoes and very cruel pains and distress from the disease

1. Oviedo y Valdes: Historia general y natural de las Indias, islas y tierra firma del Mar Oceano, vol. 1, (*a*) Prooemium, p. 9; (*b*) chap. 13, p. 50; (*c*) chap. 14, p. 55; (*d*) book 9, chap. 34, p. 359; (*e*) book 9, chap. 12, p. 345; (*f*) book 10, chap. 2, p. 363.

of the *buas,* because the origin of this disease is in the Indies[2] . . . meaning both the lands where this sickness is found and the Indian women of these parts. Communicated by them, 'this plague was passed to some of the first Spaniards who, with the Admiral, came to discover these lands, for as the disease is contagious it was possible for it to happen, and from them, after returning to Spain and having sown the disease there, it passed to Italy and to other parts, as I shall tell further on.

More explicit and detailed are the following paragraphs:[1e]

Of the two plagues or notable and dangerous diseases that the Christians and new inhabitants of these Indies suffered, and some suffer still, which diseases are native to these Indies, one of them was carried and transferred to Spain and from there to other parts of the world. . . . For so great a part of the gold of these Indies has passed to Italy and France, and even to the hands of the Moors and enemies of Spain, it is well that just as they have enjoyed the product of our sweat they also receive a part of our pains and fatigues. Many times in Italy[3] I laughed at hearing the Italians speak of the French disease and the French speak of the Neapolitan disease, and in truth one and the other would have been right if they had called it the disease of the Indies . . . for be it known that these *buas* went to Spain with the samples of gold of these Indies from this island of Haiti or Hispaniola. . . . And from the first few months of the year one thousand four hundred and ninety-six this malady was felt among many courtiers, but in the beginning it was a disease of the common and the low, and it was said that it was caught from the public women and from libidinous practices, but later it spread even among the greatest. It caused a very great surprise to all who saw it, not only because it was a contagious and terrible disease, but also because many died from it. And as this condition was a new thing, nobody understood it, nor did the physicians know how to cure it, nor could others by experience advise on such work. It followed that the Great Captain Gonçalo Fernandez de Cordova was sent to Italy with a great and handsome army by especial command of their Catholic Majesties on behalf of King Ferdinand, the second of that name in Naples, against King Charles of France, called the large-headed; and among these Spaniards were some affected by the disease, and through women of ill living it was transmitted to the Italians and French. . . . Until King Charles invaded the country such plague had not been seen in those lands, but the truth is that from this island of Haiti or Hispaniola it passed to Europe, as I have said, and it is here[4] very common among the Indians, and they know how to cure it and have excellent herbs and trees and plants appropriate for this and other diseases; so that of the two dangerous plagues that the Christians and settlers of these islands suffered, and which are misfortunes native to these lands, this of the *buas* is one and the other is that of the chigoes.

Of the chigoes, a common name applied to infestation with Pulex penetrans," Oviedo spoke at length. It must have been a very serious disorder, owing to the numerous parasites developing at the same time in the same person, causing infection and destruction of tissue in such

2. In Spanish the word Indias applies to both the land and the Indian women.
3. Oviedo was with the Spanish army in Naples.
4. Oviedo wrote in Haiti.

a manner that it often ended in amputation and at times in septicemia and death.

This chigoes is not a disease but rather a malady, for the chigo is a small live thing, much smaller than a flea. But nevertheless it is a sort of flea, for like the flea it jumps. This animal abounds in the dust, and in places where it is not wanted, the house must be swept often. It enters the feet and other parts, but most often the ends of the toes, not being noticed until it has settled between the skin and the flesh and begins to eat in the same fashion as a borer and even more. As the hands must perforce scratch, the animal makes such haste in multiplying itself, that in a brief time there are many of its kind, forming a sort of a bag, the size of a lentil and sometimes as large as a bean, full of nits, all of which turn into chigoes. And if in time they are not extracted with a pin or needle, as is done with the borers, they become very obnoxious, particularly when mature, for on scratching, they break away and spread in the flesh. As the Christians were not dexterous in this procedure or in curing the *buas,* many lost their feet as a result of the chigoes, because they became inflamed and gathered matter and it was necessary to treat them with iron and fire.

The following refers to dermatitis venenata, due to the latex of "Comocladia dentata," "Metopium toxiferum" and other plants of the Anacardiaceae:[5]

Guao is a tree rather than a plant, I have seen it so tall. The leaves look like those of the acebo or holly-tree of Spain, but the guao leaf is very green and curly . . . it is a powerful caustic in such a manner that the white milk that exudes and even the dew from the tree, falling on a man's face or any other part of his body, burns it, raising blebs, and the skin swells—all of which is very marvelous.[1d]

In the same chapter there is the following reference which shows that feminine coquetry is universal, even among the wild Indians in the sixteenth century:

Some Indian girls, willing to suffer in order to improve their looks, and envious of the white color of the women of Spain, roast the roots of the guao and, rubbing them between their hands, make a sort of paste or ointment with which they anoint their faces and necks and all over those parts which they wish to whiten, and on top of it they apply other herbs or comforting juices to avoid being burned alive by the guao, and at the end of nine days they remove all of it, and, washing it off, they are left so white that they become unrecognizable, for they are as white as if they had been born in Castile.

Another well known cause of dermatitis venenata in the American tropics is the common manchineel:[5]

In this island Hispaniola on the coast of the setting sun and in the hills of point San Miguel, also called the Shark, and in other islands and even in Terra Firma, there are innumerable *mançanillos* from which the Caribbeans make, together

5. Pardo-Castello, V.: Dermatitis Venenata: A Study of the Tropical Plants Producing Dermatitis, Arch. Dermat. & Syph. **7**:81 (Jan.) 1923.

with other herbs, that diabolical mixture with which they poison their arrows. And it has been proved by many, and at many times, that in lying down to sleep carelessly under these trees, on getting up it is with great headache and swelling of the eyes, eyebrows and cheeks. And even in the case that dew from this tree touches the face, it acts like fire and burns the skin as far as it reaches, and should it enter the eyes, it blinds them and may endanger the eyesight.[1e]

On the therapeutics of syphilis Oviedo wrote:[1f]

Two very excellent and notable trees there are . . . for common as is the disease of the *buas* in all these parts, so the divine mercy has wished that we also find the remedy to cure it. Although in many other parts is this disease found, the origin of it and where the Christians first saw it and experimented on its treatment with the guaiacum was in this island Hispaniola. The other tree is named *palo sancto* (holy wood). . . . Returning to the guaiacum . . . in Spain and other countries many wonderful cures have been seen in men who were crippled and torn to pieces with many cruel ulcers and extreme pains. . . . Among the Indians this disease is not as grave or as dangerous as in Spain and other cold countries; on the contrary these Indians easily cure themselves of this disease as easily as in Spain of the itch, and they consider it of no more importance, being very common. (Here follows the detailed account of the elaborate preparation and administration of guaiacum.)

It has been ascertained that this disease is contagious and may be transmitted in many ways, such as the sound man wearing the clothes of the sick one or from eating or drinking in his company or from the plates and cups used by the patient, and much more from sleeping in the same bed and catching of his breath and perspiration, and even more from having carnal excesses with any woman afflicted with this disease . . . and in these Indies very few Christians, and very few indeed, have escaped this painful disease, of those who have had carnal connection with the women of this generation of Indians, because in truth it is a plague native to these lands and as common with the Indians as usual diseases in other parts.

Of the tremendously rapid spread of the disease throughout the world, Oviedo gives as proof the existence of the disease in the Molukka Islands, where the condition was called the Portuguese disease. It was probably carried there by Portuguese sailors and traders by way of the Indian Ocean, since Oviedo's report is based on the declarations of Antonio Pigafecta y Vicentini who made the circumnavigation trip with Magellan from 1519 to 1522.[6a]

Toxic alopecia due to the ingestion of meat was observed by Oviedo, who referred to large animals as big as cows which came lowing out of the sea, and lay in the sun on some islets near Terra Firma:[6b]

. . . there was a herd of six hundred of these animals with their hides well covered with hair, such as would be greatly appreciated in Spain for lining garments. The men of the army ate of their flesh, which was good, except the livers

6. Oviedo y Valdes: Historia general y natural de las Indias, islas y tierra firma del Mar Oceano, vol. 2, (*a*) book 20, chap. 3, p. 30; (*b*) book 22, chap. 2, p. 159; (*c*) book 25, chap. 3, p. 219; (*d*) book 5, chap. 1, p. 126; (*e*) book 6, chap. 17, p. 204; (*f*) book 25, chap. 23, p. 330.

which were dangerous, causing the fall of the hair of the men who partook of this meat.

Although not strictly a medical subject, the following is worthy of note since it is the oldest record in America of the use of lethal gases in warfare:[6c]

In front of the squadron there were two young men carrying a fire in a pot in one hand and in the other hand ground up hot peppers, which they sprinkled on the fire when the wind was favorable, and the smoke, smiting the Christians in their noses, gave them no little discomfort, for at once this smoke made them lose their bearings and caused them many sneezes.

The Indians of the West Indies and of South America were very fond of tattooing, many references being found in Oviedo's book, among which the following are interesting.[6d]

Speaking of the idols or *cemies* of the West Indians:

. . . they paint them on their persons as a perpetual dye, for as long as they live, breaking their skin and flesh and sealing them in. . . .

Also:[6e]

In this island Hispaniola and in many other parts of Terra Firma[7] there are pine trees like those of Spain and the Indians extract from the burning wood some sort of powder . . . like very fine charcoal . . . which they carry to market for sale . . . and this powder is to mark the Indians as slaves with such designs as they see fit and also for decorating themselves. This powder is very black and in their language is called *tile*. . . . They use it, cutting the skin of the arm or face where the mark is to be, with sharp flints, the cut being between the skin and the flesh. The wound is powdered with this black coal and in a brief time it heals, leaving the black paint and very well done, for all the rest of the days of the man thus marked.

Concerning the conquest of Venezuela Oviedo said:[6f]

The men who are held as principals among the nobles or who are considered apart from the common and those who gradually become nobles, such as in Spain and in other parts, who for important deeds of valor or special efforts rise to knightship and nobility, use paint in their own flesh, cutting and painting with black ink such wounds in the form of pictures. . . . They begin painting from the end of the fingers up to the wrists and from there to the elbows and from the elbows to the shoulders and then from the waist to the stomach, and from the stomach to the breasts and from there to the throat and from the throat to the mouth and from the mouth to the eyes and from the eyes to the forehead. As there is nothing to paint any higher, the next superior grade is to wear a piece of tiger skin around the head. . . . So that from the beginning of these paints they go grade by grade rising in knightship and nobility.[8]

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7. The Chondal Indians of Nicaragua.

8. Other references to artistic tattooing from a dermatologic point of view are found in volume 3, book 29, chapter 2, page 8, concerning the Indians of Panama; in volume 3, book 29, chapter 21, page 111, about the Indians of the Nicoya tribe in Nicaragua, and in volume 3, book 29, chapter 28, page 139, about the Cueva Indians of Castilla del Oro.

One of the most interesting remarks from a dermatologic point of view is found in the account of the conquest of Castilla del Oro, about the existence of caraate among the Indians of the Cueva Province:[9a]

To carry the palanquin in which they bore the chief . . . the Indians detailed for this service, usually slaves . . . are chosen from those who are *caraates.* And to explain what thing is this *caraate,* I will say that *caraate* is called the Indian who has all his person or the major part of it crusted, the skin raised in the manner of ringworm (*empeynes*). They look very ugly, but they are uncommonly vigorous and of greater strength, and they appear frizzled, and this frizz is a malady which has an end when it has gone all over the body . . . and it has changed all the skin of the person.

Ticks were the cause of much suffering to Indians and Spaniards alike. Concerning the Cueva Indians in Castilla del Oro, Oviedo said:[9b]

These people are not exempt from a plague which disturbs them greatly . . . going with their naked legs in places where there is much water, there stick to them so many ticks from the grasses, and so small that ground up salt is little less in size, and there is no way to get rid of them except by soaking with oil and scraping them off with a knife; so do the Christians, but the Indians who do not have oil burn them off with a lighted straw and they suffer greatly to remove them. And after that there remained so much pain and itching that it could not be forgotten for that day and many more to come.

Financially our Caribbean colleagues were undoubtedly well off:[9c]

The physicians cure their patients by blowing and cutting at the site of the pain and sucking about it, and they also employ fire cauteries, and they make them blow at each other for in this way they say the sickness is chased out. And in pay for their work they give to the physician all they have.

Verruca peruviana was also known to Oviedo:[9d]

In this land (Peru?) all the Spaniards who remain more than a month develop large and dirty warts, coming out in the face of some and on the body of others, and they smell foul, and if broken they bleed and endanger life in some cases. . . . They eat raw fish and they believe that these warts are contracted from the fish.

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9. Oviedo y Valdes: Historia general y natural de las Indias, islas y tierra firma del Mar Oceano, vol. 3, (*a*) book 29, chap. 26, p. 126; (*b*) book 29, chap. 28, p. 139; (*c*) book 35, chap. 7, p. 616; (*d*) book 46, chap. 17, p. 221.

OIL OF CADEBERRY

A LITTLE KNOWN DRUG THAT IS VALUABLE IN CERTAIN DERMATOSES

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Prior to 1900, oil of cade, a drug which is fairly well known and widely used in numerous dermatologic conditions, was of different composition from that now obtainable. It was a French product, produced by the destructive distillation of juniper. The oil was thick, black and syrupy, with a distinct odor of pine. In the late nineties, for some reason, oil of cade suddenly changed its composition, being more or less what is now obtainable, a less thick but still black oil with a definite, somewhat disagreeable, tarry odor.

My father, Dr. J. Williams Lord, who at the time prescribed oil of cade frequently, found the new preparation to be much more irritating and less curative than the original product. He communicated with several of the leading manufacturing chemists and drug jobbers throughout the country, submitting to them samples of the oil of cade which he had in stock, and asking whether this could again be obtained. In all cases he was informed that the new preparation was the proper oil of cade, and that the old drug could not longer be obtained. He was dissatisfied with the therapeutic action of the new product, as it produced irritation in a considerable percentage of cases even when prescribed in much weaker dilutions, and he was likewise dissatisfied with the disagreeable odor which the drug possessed, of which many of his patients complained. He commissioned Muth Brothers, one of the leading firms of manufacturing chemists in Baltimore, to discover if possible some tar which had less irritating action and possessed more pleasing properties than the oil of cade. After some months of investigation, they elaborated an oil which is a combination of green Barbados tar and oil of juniper berries.

As far back as the earliest days of settlement on the island of Barbados, the green tar, which is found solely on this island, has been considered remarkable for its efficacy in curing almost every possible ailment; it can be used both as an internal medicine and as a healing oil or embrocation; to this day it is freely used, when obtainable, by inhabitants of this island and other islands of the Caribbean Sea.

The tar is obtained entirely from a seepage in the coral formation which sometimes comes out of the sides of the coral rocks or upward

through fissures. Its progress is extremely slow, varying from a pint a day to a pint a week. The seepage frequently stops entirely for variable periods, to start once more without apparent reason. The oil undoubtedly originates as a formation of petroleum of some sort, which picks up certain other qualities in its progress through the coral rock. As far as I have been able to determine, no research as to its exact composition has ever been undertaken.

The tar itself has a somewhat disagreeable, gassy odor, and for this reason the oil of juniper berries is added. The final product is labeled oil of cadeberry to distinguish it from oil of cade, which is, of course, still widely used.

The oil is a dark greenish-black, of slightly more viscid consistency than maple syrup, and has a distinct odor of pine that is not at all disagreeable.

As far as I can determine, nothing has been written about the drug, and its use is almost entirely limited, therefore, to those physicians who have tried it on the recommendation of my father. It is fairly widely used, I understand, in Chicago and Baltimore, but its sale is practically limited to these two cities.

INDICATIONS FOR THE USE OF OIL OF CADEBERRY

I have found oil of cadeberry to be of extreme value in a considerable number of common dermatologic conditions, both when used alone and when incorporated in ointments of various sorts. It has definitely stimulating and antiseptic properties.

Heading the list of the conditions in which I have employed it most efficaciously is chronic seborrheic dermatitis. In this condition the oil can be used in combination with salicylic acid or sulphur, or it can be incorporated alone in ointment used as a base. I have found that the most satisfactory base is some ointment of zinc oxide. Its application is well tolerated in strengths up to 25 per cent; it practically never produces irritation in cases of seborrheic eczema. The formula which I use most frequently is as follows:

	Gm. or cc.
Salicylic acid	0.6 to 1.8
Oil of cadeberry (Muth Brothers)	7.5
Ointment of zinc oxide	30.0

Even the most chronic forms of seborrheic dermatitis will often disappear as if by magic after a few days' application of this prescription.

Infantile eczema produces another fertile field for the application of oil of cadeberry. Here the concentration of the oil should be slightly less; one occasionally sees infants who seem to be definitely sensitive

to it. For the most part, however, oil of cadeberry is extremely well tolerated and quite efficacious.

In a resistant, deep-seated sycosis vulgaris which has failed to respond to any of the well known and widely accepted therapeutic agents, the pure oil rubbed in thoroughly twice daily not infrequently produces the turning point in the disease.

Simple folliculitis responds well to the application of the pure oil, as does the folliculitis which is frequently associated with an acute tinea cruris or which follows the application of strong mercurials for the treatment of tinea cruris. The chronically thickened eczematous patches which are sometimes observed about the anal region, whether due to ringworm or produced solely by the trauma secondary to a long standing pruritus ani, are often benefited markedly by ointments in which oil of cadeberry is incorporated. The formula of Dr. Oliver Ormsby, which he finds particularly efficacious in this condition, is as follows:

	Gm or cc.
Salicylic acid	0.15
Menthol	0.15
Sulphur	1.8
Zinc oxide	3.6
Oil of cadeberry	3.6
Powdered starch	7.5
Petrolatum; sufficient to make	30.0

Lastly, I have found oil of cadeberry a valuable therapeutic agent in static eczema, particularly the so-called eczema madidans. In this disease the pure oil is swabbed freely on the raw, weeping surfaces, and pressure bandages are applied directly to the leg. A few daily dressings in this fashion will rapidly reduce the acute process, after which the oil can best be utilized in the form of an ointment, either zinc oxide ointment or petrolatum being used as a base.

SUMMARY

1. A little known tar is called to the attention of dermatologists, and some brief notes regarding its history are given.

2. Oil of cadeberry has the great advantage of being almost entirely nonirritating to the most diseased skin, even in strong concentrations, and has as well all the curative properties of the better known tars.

3. Its odor, being much more agreeable than that of the other tars, gives this oil considerable esthetic advantage.

4. A list of some of the diseases for which oil of cadeberry has proved of considerable value in my hands is given.

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CUTANEOUS ALLERGY AND LYMPHOGRANULOMATOUS ANTIGENS

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It is only recently that great importance has been attached to the study of benign lymphogranulomatous syndromes. In France, Germany, Italy and other countries, Durand, Nicolas and Favre's [1] demonstration of the existence of a new venereal disease has received especial attention, the more so after W. Frei [2] established, in 1925, the diagnostic importance of his intracutaneous reaction with an antigen prepared from lymphogranulomatous lesions.

A frequent increase in the number of cases and a more extended use of the intracutaneous reaction of Frei have proved that this biologic test is not always specific. Owing to this fact, numerous diagnostic errors are made.

After experimental and clinical investigations, we have arrived at the conclusion that these errors are due to the fact that among the different symptoms ascribed to Nicolas and Favre's disease, there exist two different diseases which give a positive reaction only when the proper antigen is used as a test.

To simplify the meaning of the following paragraphs, we shall ascribe each of these diseases to a different virus, which we shall call virus A and virus B.

Virus A determines the following conditions, preceded by the appearance of an ulceration on or around the genital organs or anus: inflammation of the inguinal lymph nodes (poradenitis of Nicolas and Favre), esthiomène vulvae, elephantiasis penis et scroti (Bartels and Biberstein [3]) and chronic stricture of the rectum (Jersild,[4] Frei and Koppel [5]).

From the Social Hygiene Department, Public Health Service of Chile.

1. Durand, E.; Nicolas, J., and Favre, M.: Bull. et mém. Soc. de méd. d. hôp. de Paris, 1913, p. 274.

2. Frei, W.: Klin. Wchnschr. **4**:2148, 1925.

3. Bartels, C., and Biberstein, H.: Beitr. z. klin. Chir. **152**:161, 1930; 325, 1930.

4. Jersild, O.: Ann. de dermat. et syph. **1**:590, 1930.

5. Frei, W., and Koppel: Dermat. Wchnschr. **50**:1920, 1928.

Virus B determines the appearance of general symptoms resembling those that precede the initiation of most infectious diseases; after a few days the inguinal, deep, iliac, mesenteric, lumbo-aortic and other lymph nodes appear inflamed. In certain cases, a slight exanthem is present; in others, articular complications, such as arthritis, accompany the ganglionic swellings. No apparent site of inoculation can be found on or around the genital organs.

As to the etiology of these conditions, on the basis of clinical observations of unquestionable value, such as cases in physicians, medical students and other cultured persons, we believe that these different viruses are of buccal origin, as in the aforementioned patients there existed a clear relationship between cunnilinguism and other abnormal sexual practices and the onset of the disease. We have encountered a case of an ulceration of the tongue with subsequent inflammation of the submaxillary lymph nodes, and another interesting case in a medical student in whom there appeared, almost simultaneously, an ulceration on the penis and one on the tongue, followed by inflammation of the corresponding regional lymph nodes.[6]

Because of frequent diagnostic failures in testing our patients with lymphogranulomatous antigen, and on the evidence of our clinical observations, we decided to prepare two different antigens. For the preparation of antigen A, we used pus from the lymph nodes of patients suffering from the effects of virus A; for antigen B, material from lymph nodes in cases attributed to the effects of virus B.

In thirty-six patients with poradenitis, elephantiasis, esthiomène and similar conditions, tested with antigen A, cutaneous allergy was invariably demonstrated in from twenty-four to forty-eight hours; control tests with antigen B and a sterile leukocyte suspension were all negative. Eighteen patients presenting the symptoms ascribed to virus B were tested in a similar fashion and reacted positively with antigen B and negatively in the control tests.

The material for the preparation of antigens must be obtained from patients free from any other venereal disease or tuberculosis. In cases in which a positive Reenstierna reaction appears, auto-inoculation of the material should be made, as a positive reaction of this nature may correspond to a former infection by Ducrey-Unna's streptobacillus, and a case with an otherwise favorable prognosis may be lost.

After disinfection of the skin by means of iodine or mercurochrome, the softened contents of diseased lymph nodes are obtained with a hypodermic syringe. The extracted material is deposited in a sterile Jena glass bottle containing crystal pellets, which facilitate a rapid

6. Coutts, W. E.: Ann. d. mal. vén. **26**:168, 1931.

homogeneization, and is diluted with 10 cc. of sterile physiologic solution of sodium chloride per cubic centimeter of material. The first day this mixture is heated for two hours at 60 C.; the next day, for one hour at the same temperature; on the third day, this procedure is repeated.[7]

Sterility tests should be made of both fresh and heated materials under aerobic and anaerobic conditions, and should be repeated when the material has been placed in 1 cc. sterile ampules.

The antigen should not be used for diagnostic purposes unless it proves sterile under all tests, and it is not reliable after two months.

When the test is to be made, 2 or 3 drops of the antigen are injected intracutaneously into the upper part of the arm. At the same time we employ as a control test, a 1 : 10 sterile emulsion of leukocytes and physiologic solution of sodium chloride.

After forty-eight hours, if the outcome is positive, an inflammatory infiltration of about 0.5 cm. around a hard papule appears at the site of injection. The reaction produced by controls must be negative, but there may be a slight redness where the leukocytes were injected.

With the progressive increase in the number of cases of lymphogranulomatous conditions, we believe that it is necessary for practitioners to become acquainted with these reactions and to employ both types of antigens, as otherwise they may be easily led into diagnostic errors.

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7. Frei, W.: Klin. Wchnschr. **10**:1340, 1931; **11**:512, 1932.

CULTURE OF THE TUBERCLE BACILLUS BY THE LÖWENSTEIN METHOD

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Since the discovery of the tubercle bacillus by Koch in 1882, there have been numerous attempts to obtain a pure culture of the bacilli from the flowing blood. Löwenstein,[1] in 1905, believing that there was a bacillemia in tuberculosis, was able to culture tubercle bacilli from the cardiac blood of dogs and guinea-pigs which had been inoculated with the bacilli. He believed that a septicemia in tuberculosis was not uncommon, even without clinical miliary tuberculosis. Since 1924, his work in this field has attracted considerable attention both in Europe and in America.

HISTORICAL BACKGROUND

The history of the cultivation of the tubercle bacillus from the blood has been excellently reviewed in detail by Russew [2] and Jontofsohn.[3] Their work has been freely quoted in the following discussion:

As early as 1868 Villemin proved the presence of tubercle bacilli in the flowing blood by injecting the blood from tuberculous patients into animals. He maintained that the infectious material gained entrance to the blood stream through erosion of blood vessels by a caseous process in the glands or in the lungs. Heller, in 1883, assumed a tuberculous bacillemia when he found a tuberculous focus in the uterus of a pregnant woman who died of tuberculous meningitis. One year later Weichselbaum found tubercle bacilli in the placental vessels in cases of tuberculous endocarditis and miliary tuberculosis. Lessing and Rutimeyer found tubercle bacilli in the postmortem blood of patients who had died from miliary tuberculosis. Rutimeyer was the first to find the bacilli in the blood during life. All of these authors worked with stained preparations of blood sediment.

From the Division of Dermatology, University of Minnesota; Dr. Henry E. Michelson, director.

1. Löwenstein, E., and Falckenberg, C.: Ueber die Inkubationzeit der Lungentuberkulose, Ztschr. f. Tuberk. **8**:479 1905-1906.

2. Russew, R.: Ueber Septikämie bei Tuberkulose mit besonder Berücksichtigung der Reinzüchtung von Tuberkelbazillen aus dem Blute (Methode Löwenstein), Wien. Arch. f. int. Med. **20**:231 (June 3) 1930.

3. Jontofsohn, K.: Versuche zur Züchtung von Tuberkelbazillen aus dem Blute bei Tuberkulösen, Ztschr. f. Tuberk. **61**:35 (March) 1931.

Jousset, in 1903, published his so-called method of *Inoskopie* for the isolation of the Koch bacillus from body fluids, in which he ingeniously digested the blood in pepsin, then centrifugated it and stained a streak preparation for tubercle bacilli. By this method he discovered tubercle bacilli in 17 cases of pleurisy, 8 cases of ascites, 2 cases of typhoid fever and 3 cases of a condition diagnosed as "gastric trouble"! Kormoczi and Jassinger, using Jousset's method, obtained positive results in 3 of 8 cases of tuberculous pleurisy. Garganno and Nesti obtained no positive results with this technic.

Lesieur and Gary separated the hemoglobin and then, after centrifugating it and washing it with distilled water, examined the sediment. Blood leeches were used for obtaining the blood until Moller, Weber and Kuster discovered acid-fast bacilli in the moss and grass of the aquariums where the leeches were procured. These workers injected tubercle bacilli into the aural vein in dogs and by applying a leech to the opposite ear recovered tubercle bacilli in the blood in 6 of 30 cases of tuberculosis.

Birch-Hirschfield, Schmorl and Giepel found tuberculosis of the placenta in cases of pulmonary tuberculosis. Lubarsch found evidences of hematogenous spreading of the infection in 278 of 413 cases.

The Schnitter method for direct demonstration of tubercle bacilli in the blood was in use about 1909. In this method, the blood is mixed with acetic or citric acid and antiformin. With this method the percentages of positive results obtained have been as follows: Lippman, 44 per cent in a series of 25 cases of tuberculosis; Jessen and Robinowitch, 33 per cent in 36 cases; Nagy, in late pulmonary tuberculosis, 45.5 per cent; Straus, in intestinal tuberculosis (32 cases), 75 per cent, and Kraus, in late pulmonary tuberculosis, 58.79 per cent, and in moderately advanced pulmonary tuberculosis, 19.3 per cent.

Kurashige, in 1911, found 100 per cent positive results in 155 cases of tuberculosis in various stages, and claimed 59 per cent positive results in healthy people. Majejama and Jamadu claimed that tubercle bacilli were frequently found in cases of tuberculosis in which the lesions had healed.

Rosenberg, in 1913, using blood sediment treated with sodium citrate and stained by the Ziehl-Neelsen method, found tubercle bacilli in the blood in 49 cases of tuberculosis.

THE LÖWENSTEIN METHOD

Any procedure in which the aim is to obtain cultures of tubercle bacilli from the blood is attended with difficulty. It has been found that the average time for macroscopic growth of the tubercle bacilli, when Löwenstein's method and medium are used, is about eight days for sputum and from three to four weeks for blood, although the growth

may appear as long as three months after inoculation of the medium, depending on the number and virulence of the bacilli. Löwenstein's method is as follows:

Preparation of the Medium.—Five average-sized eggs are used, sterilized by being placed in hot soda lime and green soap solution (āā) for one-half hour and then washed for twenty minutes in running water. They are then placed in corrosive mercuric chloride solution and washed with alcohol.

The following solution is then prepared:

Mono-potassium phosphate	1.0 Gm.
Sodium citrate	1.0 Gm.
Magnesium sulphate	1.0 Gm.
Asparagine	3.0 Gm.
Glycerin	60.0 cc.
Distilled water	1000.0 cc.

To from 150 to 160 cc. of this asparagine solution, 6 Gm. of potato flour and 12 cc. of glycerin are added. This is then boiled for fifteen minutes, being shaken frequently, and then let stand for one hour at 56 C. To this, four whole eggs are added, and the yolk from the fifth, the mixture being shaken thoroughly in a container with glass beads; 5 cc. of 2 per cent sterile congo red or malachite green is then added, and the medium is filtered through sterile gauze and poured into tubes having sterile plugs. The liquid medium is then slanted and congealed for one hour at from 80 to 85 C. on each of two succeeding days. The sterility of the medium is tested by placing the tubes in an incubator for forty-eight hours at 37 C.

Petragnani's medium contains potato flour, peptone, egg and glycerin. Löwenstein's medium is a modification of this, asparagine being used instead of peptone, and malachite green or congo red being added in order to afford better visibility of the colonies of bacilli.

Preparation of Blood.—From 8 to 10 cc. of blood is withdrawn from a vein under sterile precautions and mixed with 2 cc. of 5 per cent sterile sodium citrate solution. The blood is centrifugated and the serum withdrawn with a sterile pipet; 10 cc. of 5 per cent sterile acetic acid is added, with as thorough removal of the hemoglobin as possible, then the settlings are washed twice with sterile distilled water. The settlings are then inoculated on the medium, and the tubes are placed in an incubator. Five or six tubes are inoculated with 0.5 cc. of blood sediment. The work must be absolutely sterile.

If the blood is contaminated, the sediment is treated with three times its volume of 15 per cent sulphuric acid and shaken for five minutes. It is then centrifugated, decanted and washed twice with sterile distilled water. It is then ready for inoculation onto the medium.

RESULTS OF THE LÖWENSTEIN METHOD AS REPORTED IN THE LITERATURE

In summarizing the numerous reports from those who have used the method it is a significant fact that Löwenstein and his pupils were able to obtain positive cultures in a very large percentage of cases,

whereas others were unable to duplicate this percentage. A group including Kren,[4] Russew,[2] Konrad,[5] Fischer,[6] Schwabacher,[7] Lichtenstern,[8] Mathiesen,[9] Ashimura [10] and Löwenstein [11] obtained results that were about 50 per cent positive. Nanu, Janesco and Stefanesco,[12] Popper et al.,[13] and Jontofsohn [3] were neutral as to the value of the method. Another group, including Horster,[14] Bingold,[15] Weber,[16]

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4. (*a*) Kren, O., and Löwenstein, E., Zur Pathogenese der Hauttuberkulose und der Tuberkulide einschliesslich des Lupus erythematodes, Wien. klin. Wchnschr. **44**:405 (March 27) 1931; (*b*) Zur hämatogenen Entstehung gewisser Tuberkulosen der Haut, Klin. Wchnschr. **10**:974 (May 23), 1931; (*c*) Die Bedeutung bei den verschiedenen Formen der Hauttuberkulose und dem Lupus erythematodes, Arch. f. Dermat. u. Syph. **166**:375 (Sept.) 1932.

5. Konrad, J.: Ueber den Tuberkelbazillen nachweis aus dem stromenden Blute bei Hauterkrankungen, Wien. klin. Wchnschr. **45**:430 (April 1), 1932.

6. Fischer, A.: Ergebnisse der Züchtung von Tuberkelbazillen aus dem Blut nach Löwenstein, Ztschr. f. Tuberk. **58**:331 (Dec. 1) 1930.

7. Schwabacher: Blood Culture in Tuberculosis, Lancet **1**:1130 (May 23) 1931.

8. Lichtenstern, R.: Bazillämie bei Urogenitaltuberkulose, München. med. Wchnschr. **77**:471 (March 20) 1931. Löwenstein.[11a]

9. Mathiesen, A. F.: Resultate mit der Löwensteinschen Blutkulturmethode bei verschiedenen Formen der Hauttuberkulose, Wien. klin. Wchnschr. **45**:719, 1932.

10. Ashimura: Ueber die Züchtung von Tuberkelbazillen aus dem Blute, Ztschr. f. Tuberk. **42**:202, 1925.

11. Löwenstein, E.: (*a*) Die Methodik der Reinkultur von Tuberkelbazillen aus dem Blute, Deutsche med. Wchnschr. **56**:1010 (June 13) 1930; (*b*) Das Vorkommen der Tuberkelbazillämie bei verschiedenen Krankheiten, München. med. Wchnschr. **78**:261 (Feb. 13) 1931; (*c*) Tuberkelbazillämie bei Erkrankungen des Zentralnervensystems, ibid. **78**:1080 (June 26) 1931. (*d*) Löwenstein, E., and Russeff: Ueber Reinsuchtung von Tuberkelbazillen aus dem Blute, Wein. klin. Wchnschr. **45**:430 (April 1) 1932. Löwenstein.[1]

12. Nanu, I.; Janesco, D., and Stefanesco, C.: Contribution au diagnostic de la bacillémie tuberculeuse par l'hémoculture selon la méthod de Löwenstein, Presse méd. **39**:1805 (Dec. 9) 1931.

13. Popper, H.; Bodart, F., and Schindler, W.: Zur Kenntnis der Tuberkelbazillenzüchtung aus dem Blute (nach Löwenstein, Wien klin. Wchnschr. **44**:1494 (Nov. 27) 1931.

14. Horster, H.: Bakteriologische und serologische Untersuchungen bei Tuberkulose und "rheumatischen" Erkrankungen, Klin. Wchnschr. **10**:2389 (Dec.) 1931.

15. Bingold, K.: Direkte Züchtung von Tuberkelbazillen aus dem Blute, Beitr. z. Klin. d. Tuberk. **68**:734 1928. Bingold, K., and Spier, W.: Zur Frage der direkten Züchtung der Tuberkelbazillen aus dem Blut, München. med. Wchnschr. **78**:1899 (Nov. 6) 1931.

16. Weber, F. P.: Brit. J. Dermat. **44**:116 (Feb.) 1932.

Kallós,[17] Matras,[18] Grimm,[19] Favero,[20] Unverricht and S. Dosquet [21] and others [22] (mentioned in the Berlin Dermatological Society), obtained few if any positive results.

RESULTS IN THIS CLINIC

Löwenstein's medium was first tested and compared with Dorset's egg medium and Korper's potato medium. A suspension of known tubercle bacilli in sterile distilled water was spread over the surface of the different mediums. Half the tubes were sealed with wax promptly and the other half sealed four days later. In the latter group, a small hole was made in the wax in each tube twenty-five hours after sealing. It was found when the growth reached its full development that it was as luxuriant in one set of tubes as in the other. The time of sealing the tubes made no apparent difference in the growth. Twelve days after inoculation of the culture tubes, growth became macroscopically visible on Löwenstein's and Korper's mediums as

Cases in Which Cultures of Blood Were Made on Löwenstein's Medium

Type of Case	Number of Cases
Pulmonary tuberculosis: Far advanced	11
Moderately advanced	9
Bone tuberculosis	7
Papulonecrotic tuberculid	1
Chronic lupus erythematosus	3
Erythema induratum	1
Rheumatic fever and erythema nodosum	1
Erythema multiforme	1
Tuberculid en plaque	1

pinhead-sized, whitish, discrete, dry colonies. Growth appeared a week later on Dorset's medium, but in all tubes it was sparse in comparison with the growths on the other types of medium. The growths were proved to be tubercle bacilli microscopically, with the Ziehl-Neelson stain. In a month's time the growths had spread luxuriantly over Löwenstein's and Korper's mediums, but were still scant on Dorset's egg preparation. I concluded that Löwenstein's medium was superior

17. Kallós, P.: Zur Frage der Tuberkulosebazillämie die Hauttuberkulösen, München. med. Wchnschr. **78**:1901 (Nov. 6) 1931; Weitere Züchtungversuche Tuberkelbazillen aus dem Blute nach Löwenstein bei Hauttuberkulose, Dermat. Wchnschr. **94**:861 (June 18) 1932.

18. Matras, A.: Die Tuberkelbazillenkultur nach Löwenstein aus dem Gewebe tuberkulöser Hauterkrankungen, Wien. klin. Wchnschr. **45**:524, 1932.

19. Grimm, O.: Ueber den kulturellen nachweis von Tuberkelbazillen im Blute und Gewebe bei Hauttukerkulösen, Dermat. Wchnschr. **94**:584, 1932.

20. Favero, E.: Esperimenti sul procedimento emoculturale di Löwenstein nel corso dell'infezione tuberculare, Gior. di tisiol. **10**:38, 1932.

21. Unverricht and Dosquet, S.: Die direkte Züchtung der Tuberkelbazillen aus dem Blut (nach Löwenstein), Ztschr. f. Tuberk. **63**:338, 1932.

22. Minutes of the Berlin Dermatological Society, Dermat. Ztschr. **63**:275 (March) 1932.

to the other two. From September, 1931, until May 1932, 140 cultures of blood were made in the cases listed in the table, Löwenstein's method and medium being used. No positive cultures were obtained.

COMMENT AND CONCLUSIONS

During the course of a tuberculous process in the lungs or elsewhere in the body tubercle bacilli, it may be reasonably assumed, can enter the blood stream. Perhaps in most cases the bacilli remain localized, but one could easily understand that in the course of the disease an entrance into the blood stream might be gained. The fate of the bacilli after their invasion of the blood depends on their number and virulence and the resistance of the host. In unfavorable conditions, miliary tuberculosis follows. If there is marked resistance, a harmless bacillemia results. Hence the finding of tubercle bacilli in the flowing blood in cases other than those of miliary tuberculosis is really an expression of resistance and of no prognostic value as to the life of the patient.

Robert Koch [23] believed that tubercle bacilli could penetrate the walls of blood vessels, and Ponfic maintained that invasion of the blood took place via the lymphatic system—for example, through the thoracic duct, as in cases of tuberculosis of the intestines, peritoneum, and pleura. Löwenstein showed in his work on chicken tuberculosis that bacilli could pass through the filtering lymph nodes and eventually get into the blood stream. Koch, Flugges, Albrecht and Ghon asserted that the bacilli could pass through the lymph nodes, causing metastatic lesions in such organs as bones, joints and the kidneys, with the primary focus in the lung. Russew [2] assumed that in the course of metastatic tuberculosis, if some organ susceptible to the tubercle bacillus, such as the kidney or a bone, were first attacked, decreased resistance of the entire organic system would result, whereas if a resistant structure such as the thyroid gland or the striated muscle were attacked, increased resistance would ensue. The same phenomenon was observed by Nocard and Lysa, working with rabies. If the virus was injected into the carotid artery, rabies developed; if into the crural artery, immunity to rabies followed.

Löwenstein expressed the belief that his method has great clinical importance because it is a means of demonstrating directly a pathologic invader of the blood stream, therefore taking precedence over any other diagnostic method such as animal experimentation or an indirect serologic test such as the tuberculin test. Nevertheless the method is admittedly difficult, and there are many chances for error in such a long, detailed procedure. In a personal communication to Dr. Michelson, Professor Kren stated that the medium should never be older than fourteen days, and that in preparing the blood the hemoglobin must be thoroughly removed. As an aid either in diagnosis or in prognosis, its

23. Koch, cited by Russew.[2]

value is diminished owing to the difficulty of the procedure, the expense involved, and the time required. A single negative blood culture is not conclusive, as in many cases positive cultures were obtained by Kren and Löwenstein [4c] only after repeated trials over a period of several months. For example, in a group of 47 cases of tuberculosis of the skin, only 32 per cent were positive on the first culture. In the negative cases, the cultures were repeated, and the percentage of positive results was raised to 88 per cent after five cultures. In the group of cases studied in this clinic, repeated culturing as recently advocated by Kren and Löwenstein was not carried out, so that it is entirely possible that positive cultures might have resulted, had this been done. It is significant, however, that no positive cultures resulted from the first trial, whereas, according to the statistics of Kren and Löwenstein, 32 per cent of their cases of tuberculosis of the skin yielded positive cultures on the first trial. Most of my cases were proved to be cases of pulmonary or bone tuberculosis, in which, if ever, a bacillemia should have been expected, but in every case a negative culture was obtained.

Kren and Löwenstein stated their belief that tuberculosis of the skin, lupus erythematosus and the tuberculids are the result of a chronic tuberculous bacillemia rather than of tuberculous toxins circulating in the blood. The formation of tuberculids in "showers" is cited as an example of the hematogenous sowing of the bacilli. The tuberculous focus may begin in the lung unnoticed, with tubercle bacilli flowing in the blood asymptomatically. The bacilli may find a locus minoris resistentiae in the skin, for example, and then a secondary focus results, the exact type depending on the resistance and physical characteristics of the host, the number and virulence of the organisms, and the anatomic location of the secondary focus. The rapidity with which a blood culture becomes positive is supposed to bear some prognostic value; the more virulent and the greater the number of the bacilli in the blood, the sooner the bacilli grow on the culture medium. Thus, if a negative culture is obtained, it may mean little except that for the time being there is no bacillemia. Kren and Löwenstein held that the bacilli are present in the blood intermittently rather than continuously. Repeated negative cultures, however, offer a good prognosis. In the dermatologic cases it was found that if the blood culture remained positive even in the face of local healing of the lesions, relapses occurred, or a new tuberculous focus developed elsewhere in the body.

In my series of cases of far advanced pulmonary tuberculosis, blood vessels and lymphatics doubtlessly were eroded by the caseating process. I should expect then, if ever, to find bacilli in the blood stream. It is difficult to understand why I obtained completely negative results following the method of Löwenstein.

A more uniform consistency in the results is desired before accepting the method as one of precision.

I hope to continue the work and report again subsequently.

INTRADERMAL TREATMENT OF LYMPHOGRANULOMA INGUINALE

PRELIMINARY REPORT

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AND

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The increasing number of clinical reports on lymphogranuloma inguinale, which incidentally indicates how frequently it occurs in both sexes, generally point out the resistance of the condition to the various therapeutic measures employed. Hermans,[1] in 1928, utilized Frei's antigen, prepared in the usual manner, with fairly good results. He gave subcutaneous injections, beginning with 0.1 cc. and increasing the dose to 0.6 cc., at intervals of from four to five days. Gay-Prieto,[2] in 1932, treated five patients with intravenous injections of a specially prepared antigen, and all of his patients were either benefited or cured.

For the past eighteen months we have had under observation twelve men and four women with lymphogranuloma inguinale, all presenting strongly positive Frei tests. One of the men presented the anorectal syndrome usually seen in women.[3] Our earliest patients were given subcutaneous injections of Frei's antigen [4] as suggested by Hermans, and improvement was noted after months of treatment. The limited amount of antigen available, however, has prevented the treatment of a large number of persons by this method.

We noted in some of our patients that following the diagnostic Frei tests, which were being made to test the authenticity of various antigens, there was a cessation of the activity of the lesions together with an improvement in the general condition. The local reaction resulting from successive diagnostic intradermal tests apparently had a beneficial therapeutic effect.

From the Department of Dermatology, University of Illinois College of Medicine, service of Dr. F. E. Senear.

1. Hermans, E.: Klimatische Bubonen und Lymphogranuloma Inguinale, Klin. Wchnschr. **7**:2436, 1928.

2. Gay-Prieto, J.: Zur Behandlung der Lymphogranulomatosis inguinalis mit spezifischem Antigen, Dermat. Wchnschr. **95**:1056, 1932.

3. Wien, Max S., and Perlstein, Minnie O.: Lymphogranuloma Inguinale, M. J. & Rec. to be published.

4. The Frei antigen used in our work was prepared according to the method given by W. Frei.

We then treated the patients coming under our observation subsequently with intradermal injections of Frei's antigen. One-tenth cubic centimeter of the antigen was given intradermally at intervals of from three to five days and an infiltrated papule formed at the site of each injection within forty-eight hours. The intensity of the Frei reaction did not vary with successive injections. A marked local reaction, however, sometimes occurred at the site of treatment, so that successive injections were made at remote sites. We also observed a reversal of the Frei reaction to negativity in three patients after each had received an average of eleven injections of the antigen into the forearm, given at intervals of three days. The results of the tests in these instances were negative irrespective of the type of antigen used. Simultaneously with the negative results obtained on the forearms, positive results were obtained when the same Frei antigen was injected intradermally into the buttocks or into the backs of the same patients. After a rest period of from two to three weeks positive Frei tests were again obtained on the forearm. We feel that the negative Frei tests in these instances were dependent on a temporary local desensitization of the forearm.

In all the patients, there was a decided clinical improvement immediately after the earliest injections; new lesions ceased forming, the sinuses stopped discharging, and healing and fibrosis were hastened. In the patients with the anorectal syndrome, there was alleviation of the rectal symptoms with improvement in the general condition. To date these patients have received from five to fifteen injections of Frei's antigen with an average of eleven injections a patient.

The advantages of intradermal injections of Frei's antigen in the treatment of lymphogranuloma inguinale are that less antigen is required and the beneficial results are obtained in a shorter period of time than with the subcutaneous method. We have had no experience with the intravenous method described by Gay-Prieto. The intradermal method does not require any specially prepared antigen, and there is no constitutional reaction such as was noted by the foregoing authors after the first injections in their patients.

We hope that further observations on a large group of patients with prompt institution of antigenic treatment will establish the intradermal method as of definite value in the treatment of lymphogranuloma inguinale.

NOTE.—From January, 1932, to June, 1933, we have had thirty-five patients with lymphogranuloma inguinale under treatment. The results to date with intradermal antigenic treatment have been consistently good.

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ULCER OF THE LEG

ITS LOCALIZATION AS A POINT OF DIFFERENTIAL DIAGNOSIS IN SYPHILIS AND YAWS ENDEMIC COUNTRIES

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The greater frequency of nonsyphilitic ulcerations on the left leg has been pointed out by Goodman [1] as of importance for the differential diagnosis. In a series of 64 cases of ulcer of the lower part of the leg he obtained negative Wassermann reactions in 73 per cent of 26 patients with ulcers limited to the left leg, as compared with negative reactions in only 40 per cent of 25 patients with ulcers of the right leg. Of 13 patients with ulcers on the lower part of both legs 85 per cent had a negative Wassermann reaction. Goodman concluded that in his series this predominance of nonsyphilitic ulcers on the left side was due to anatomic peculiarities of the larger, higher veins, resulting in retarded venous circulation more often in the left than in the right leg.

The present analysis comprises 175 cases of ulcus cruris chosen without selection. A few of the patients were Caucasians and Japanese, but the majority were Chinese and Filipinos, the latter mostly of the Tagalog tribe, being Malayan with strong Mongolian affinities and a Papuan blend.[2]

Contrary to the unanimity of opinion as to the prevalence of ulcers of the leg and their great economic importance both in temperate and in tropical countries, medical observers vary widely in regard to the etiology.

Something has to be said in this connection about the usual textbook description of so-called "ulcus tropicum" in regard to the symbiosis of spirochetes and fusiform bacilli. Though the clinical aspect was that of typical "tropical ulcer" in many of the cases of this series, in only a negligible number was it possible to demonstrate the spirochetes and fusiform bacilli, and even then not in large numbers. I am convinced that they are not of major importance in this part of Middle Luzon in

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Read before the Section on Dermatology at the Biennial Congress of the Chinese Medical Association, Shanghai, China, Sept. 29 to Oct. 6, 1932.

1. Goodman, H.: Ulcer of the Leg, Arch. Dermat. & Syph. **6**:179 (Aug.) 1922.

2. Hasselmann, C. M.: Cultural Elements and Scenic Beauties in the Philippines, Manila, McCullough Printing Co., 1931.

the etiology of ulcers of the leg. Recent reports from some regions in Africa, however, emphasize the rôle of fusiform bacilli and spirochetes in the pathogenesis of tropical ulcers of the leg as seen there.[3]

In cultures on a semisolid medium of human blood agar, the most noteworthy organisms found were spirochetes, fusiform bacilli and elongated motile gram-negative bacilli simulating spirochetes. Ketron [4] described a case of ulcer of the right calf in which Bacillus ozaenae Abel was isolated. Nauta [5] reported, from Algeria, a type of splenomegaly with indolent ulcers of the legs disappearing after splenectomy. Aspergillosis was found in the spleen.

The importance of trophoneurotic factors in the etiology has been stressed by Wischnewsky,[6] Hackel [7] and others. Malnutrition as a primary cause of tropical ulcers in Nigeria was emphasized by McCullogh.[8] He concluded: "Tropical ulcer is a dietetic ulcer, and the question of a causative organism need not be considered at all." Likewise, Kandelaki [9] observed an epidemic of ulcers of the leg in the Caucasus during a famine. Along this line must be mentioned Eppinger's [10] theory of a local state of myxedema in ulcers of the leg of long standing without a tendency to heal, caused by lack of thyroxin.

As already mentioned, I am convinced that in Middle Luzon the well known symbiosis of spirochetes and fusiform bacilli is of no importance in the etiology of the vast majority of so-called tropical ulcers. The occasional presence of only a limited number of these symbiotic microorganisms must not be overrated. In most cases of ulcers of the leg a flora of cocci and other saprophytic bacteria was found in inverse proportion to the amount of preceding antiseptic treatment, but apparently without any connection with the size and stage of healing of the ulcer.

In none of the cases could actinomycosis, blastomycosis, leishmaniasis, leprosy or sporotrichosis be found.

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3. Bouffard, G.: Bull. Soc. path. exot. **23**:483, 1930. Fischer, W. O.: J. M. A. South Africa **4**:647, 1930. Forbes-Brown, A.: Uganda Protectorate, Ann. Med. & Sanitary Rep., 1929, appendix 7, p. 105, Smith, E. C.: Proc. Roy. Soc. Med. (Sect. Trop. Dis. & Parsitol.) **24**:217, 1930; West African M. J. **4**:68, 1931. Burnie, R. M.; Smith, E. C.; Elmes, B. G. T., and Braithwaite, E. C.: ibid. **4**:77, 1931.

4. Ketron: Atlantic Dermat. Conference, Baltimore, Dec. 7, 1928; Acta Dermat. & Syph. **19**:1006, 1929.

5. Nauta, E.: Bull. Soc. franç. de dermat. et syph. **35**:946, 1928.

6. Wischnewsky, A.: Arch. f. klin. Chir. **154**:195, 1929.

7. Hackel, W.: Arch. f. klin. Chir. **159**:698, 1930.

8. McCullogh, W. E.: West African M. J. **2**:96, 1928.

9. Kandelaki, S.: Med. Sborn. Sakawkasja, 1923, no. 1.

10. Eppinger, H.: Klin. Wchnschr. **10**:682, 1931.

Varicose veins were observed in only a negligible number of cases of ulcers of the leg. Other signs of retarded venous circulation, however, with slight antetibial edema were frequently noted among the patients. It was not possible to analyze this condition by metabolic or other tests, though in a number of cases thyroid preparations were given without any visible effect. Frequent trauma of the lower extremities usually is, in my opinion, the primary cause of tropical ulcers of the legs, though malnutrition is so widespread that it may largely determine the occurrence and the long persistence of these ulcers.

In making this analysis, I am fully aware of the undisputed fact that a single negative Wassermann or Kahn reaction is not a sufficient or definite evidence for ruling out treponematosis and syphilis as well as yaws. From the whole clinical and dermatologic picture, however, and,

Data on Present Series.

		Site of Ulcer of the Leg		
	Total	Left	Right	Bilateral
Male patients	122	54	42	26
Female patients	53	21	16	16
Children under 16 years	71	26	25	20
Total	175	75	58	42
Negative seroreactions: Number	128	60	37	31
Percentage	73, 14	80	63, 8	73, 8
Positive seroreactions: Number	47	15	21	11
Percentage	26, 86	20	36, 2	26, 2

in certain cases, by means of antisyphilitic therapy—*ex juvantibus*—an effort was made to obtain a definite diagnosis.

The analysis of Goodman was made in New York, where only Spirochaeta pallida with its mesodermotropism has to be considered and where yaws does not occur. In the tropics, however, yaws, with its various manifestations of the skin due to the ectodermotropism of Treponema pertenue, serves as an additional source of ulcers of the leg. Furthermore, ulcerations of frambesial etiology are much more frequently localized on the lower extremities than on any other part of the body.

Examination of the figures in the table shows that there is also a detectable predominance of nontreponematous ulcers on the left leg.

I am taking pains to term the ulcerations in question "treponematous" for the following reasons: While it is true that in the Philippine Archipelago, as in nearly all tropical countries, yaws is widespread and far more common than syphilis, it has been abundantly proved that syphilis too exists among the natives. The differential diagnosis between yaws and syphilis in regard to the initial lesion is not difficult

Fig. 1.—Nontreponematous ulcer of the right leg above the inner side of the ankle.

Fig. 2.—*A*, nontreponematous ulcer of the left leg with an overgrowth of epithelium at the edges and a serpiginous-circinate configuration. *B*, nontreponematous typical "ulcus tropicum" of the left leg with a rich flora of cocci but no symbiosis of spirochetes and fusiform bacilli.

for any experienced physician who bears in mind the underlying histopathology of the respective lesions. As outlined before,[11] the primary lesion of syphilis is the well known papule with marked induration, soon progressing into a sharply punched-out ulcer, otherwise called a hard chancre. The primary efflorescence of framboesia tropica, however, commences as a soft papule without induration, which soon loses the covering epidermal layer and advances into an oozing papilloma (plasmocytoma) raised above the surface of the surrounding skin.

Fig. 3.—Frambesial ulcer of the left leg with coexistent polypapillomatous yaws lesions of the generalized metastatic period.

The protean manifestations of syphilis during the so-called secondary stage are distinctly different from the primary syphilitic chancre. In yaws, however, the typical efflorescences of the metastatic generalization period are identical with the primary lesions of yaws both as to histopathology and as to morphologic appearance. This is due to the immunologic phenomena in the respective diseases, as shown by experimental evidence.[11] The differentiation of secondary syphilitic efflorescences from the frambesides of the metastatic, generalization period

11. Schoebl, Otto, and Hasselmann, C. M.: Arch. Schiffs- u. Tropen. Hyg., (supp. 2), 1932, vol. 36. Hasselmann, C. M.: China M. J. **45**:1131 (Dec.) 1931.

is likewise comparatively easy for the trained dermatologist. The differential diagnosis of late ulcerative manifestations of syphilis and yaws, on the other hand, might become insurmountable. Whereas the primary as well as the generalized metastatic lesions of yaws do not show necrosis, the late frambesial lesion—often the persistent mother-yaw, which has not subsided but has lasted until this late stage—may suddenly develop into necrosis-forming ulcerations, which may even extend from the subcutis deep into cartilaginous and osseous

Fig. 4.—Late ulcerative yaws lesion of the right leg with modified polypapilloma still present.

tissues. Under these conditions the late, ulcerative lesions of yaws may, clinically, become indistinguishable from syphilitic gummas.

With this in mind I abstained from attempting to draw a line between ulcers of the leg of syphilitic and of frambesial origin. Naturally, in a tropical country with endemic yaws, the cases with a frambesial pathogenesis by far outnumber those with a syphilitic etiology, at least in natives, though the natives, particularly in urban districts, cannot any longer be considered free from syphilitic infection. *Furthermore, the possibility of coexistent infection with framboesia tropica and syphilis has been experimentally established.* This applies likewise to treponematous ulcers of the leg occurring during a coexistent

infection with other species of treponemes. Whatever frambesial lesion will occur at a given time depends entirely on the existing stage of immunity at that particular moment, or, in the case of cross-infection, on the existent stage of heterologous immunity (cross-immunity), as pointed out by Schoebl.[12] In the case of ulcerative processes the tendency toward fulminating exacerbations and necrosis is a particular feature of late yaws lesions.

It would seem, then, that for the more or less cursory clinical examination of ulcers of the leg in the tropics the term "treponematous" ulcer is less prejudiced, though by biopsy and histopathologic evaluation it may be possible to differentiate between syphilitic and frambesial changes in these late ulcerative processes. Another procedure in the case of a questionable lesion is the transplantation of ulcer material

Fig. 5.—Late frambesial ulcers of the right leg with the typical so-called "mother-yaw" still present.

into a suitable animal (a monkey or a rabbit) in an effort to obtain the early efflorescence typical of the disease in that animal.

Owing to the dissimilarity of the blood vessels in the two lower limbs, there is much anatomic ground for retarded venous circulation in the left leg. These unfavorable static conditions were regarded by Goodman in his survey as responsible for the much greater frequency of nonsyphilitic ulcerations on the left lower extremity. Careful examination of figures in this series also reveals a slight preponderance of treponematous ulcers on the right over those on the left leg, which may be for two reasons:

1. As the primary lesions of framboesia tropica occur on the lower extremities in about 68 per cent of the cases,[13] the greater frequency

12. Schoebl, Otto: Philippine J. Sc. **42**:239, 1930; **45**:221, 1931.
13. Hasselmann, C. M.: Zentralbl. f. Haut- u. Geschlechtskr. **33**:273, 1930.

of right-sided lesions is entirely compatible with the view that in the yaws-endemic Philippine Archipelago the preponderance of ulcers of the leg of frambesial origin compensates the otherwise greater frequency of nonspirochetal ulcers on the left leg. Though the modus of infection in yaws is still *sub judice,* there is evidence enough to point to direct transmission to the skin, either by direct contact or through some intermediary insect. The frequency of the initial lesions of yaws—from which, as already pointed out, late ulcerative lesions often develop—on the lower extremities rather than on any other part of the body is an established fact. It is therefore only logical to presume that in the present series, aside from strictly syphilitic and from nontreponematous ulcers, the number of ulcers of frambesial pathogenesis—unknown in the temperate climate but widespread in the tropics—brings about a more even distribution of treponematous ulcerations over both legs.

2. The natives in tropical countries are mostly bare-footed or wear only slippers on their feet, and the lower extremities are equally the most traumatized parts of the body. Any trauma providing a cause for ulcer will, logically, affect either side without selection. Therefore, the frequency of minor injuries in bare-footed and bare-legged natives probably influences the higher percentage of negative Wassermann and Kahn reactions and nontreponematous ulcerations of the right leg in the present series.

In this connection it is noteworthy that in a recent analysis of 150 cases of ulcers of the leg in Los Angeles, Kilbourne [14] found less than 19 per cent cases of syphilitic etiology. The majority of the other patients had varicose veins. Superficial as well as deep varicose veins, however, were rarely found among the cases of the present series.

SUMMARY

1. In the temperate climate of New York, free from endemic yaws, Goodman found nonsyphilitic ulcerations on the left leg nearly twice as frequently as on the right leg among 64 patients, namely, an incidence of 73 and 40 per cent respectively.

2. Among 175 cases in the yaws-endemic tropical Middle Luzon, negative Wassermann and Kahn reactions were found in 80 per cent of the cases of ulcers of the left leg and in 64 per cent of the cases of ulcers of the right leg. The cases of bilateral ulceration showed negative reactions in 74 per cent.

3. The high percentage of negative Wassermann and Kahn reactions in our analysis, particularly in the cases of ulcer of the right

14. Kilbourne, N. J.: Leg Ulcers of Unrecognized Etiology, J. A. M. A. **98:** 1955 (June 4) 1932.

leg, is, in my belief, due to the frequency of minor injuries in bare-footed and bare-legged natives of tropical countries, easily providing a cause for ulcer on either side. Malnutrition may further contribute to the pathogenesis of tropical ulcer of the leg.

4. Furthermore, ulcers of the leg of frambesial origin may bring about a more even distribution of treponematous ulcers over both sides, as yaws does not give preference to either side. The mode of infection being by contact, either directly from skin to skin or transmitted by insects, the lesions of yaws are found more frequently on the lower extremities than on any other part of the body.

5. Symbiosis of spirochetes and fusiform bacilli does not play any important rôle in "ulcus tropicum" in Middle Luzon. The same applies to mycotic organisms.

EXPERIMENTAL ALOPECIA

A CONTRIBUTION TO THE STUDY OF ALOPECIA AREATA

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The etiology of alopecia areata remains a mystery despite considerable study. The extensive and carefully performed researches of the late Lucien Jacquet having apparently given the *coup de grace* to the parasitic theory, one must look elsewhere for an explanation of this disorder. Several years ago, Sabouraud stressed the importance of Max Joseph's experiments, which have been repeated by Mibelli, Samuel, Behrend, Moskolenko and Gregoriantz, Köster and Aubrun. Sabouraud [1] may be quoted in part as follows:

> According to these already ancient researches, it appears that certain injuries of the cervical sympathetic chain in animals may produce in them a syndrome analogous to our pelade. It would seem that whoever wishes to elucidate the pathogenesis of pelade ought to take up those experiments in series, and endeavor to ascertain by which trauma of which portion of the cervical sympathetic one can produce alopecic areas of the neck and the occipitoparietal region.

Max Joseph [2] (1886) was the pioneer along this line. He operated on thirty cats, and secured twelve positive results. Joseph emphasized the importance of removing not only the spinal ganglion of the second cervical nerve, but its anterior and posterior roots. In his opinion, the mere severance of those structures is inadequate, since the dense connective tissue of the cat permits only a slight retraction of the severed nerve ends, so that regeneration may soon ensue and thus defeat the purpose of the operation. In a series of successful experiments, Joseph noted the appearance of baldness five, seven, eleven, twelve and twenty-

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1. Sabouraud: Sur l'étiologie de la pelade, Arch. dermat.-syph. de clin. de l'hôpital Saint-Louis **1**:31, 1929.

2. Joseph, Max: Experimentelle Untersuchungen über die Aetiologie der Alopecia areata, Monatsh. f. prakt. Dermat. **5**:483, 1886.

seven days, respectively, after operation. This alopecia appeared in the territory of distribution of the second cervical nerve, and it was similar to the loss of hair observed in alopecia areata. The bald spots were round, oval or cylindric, and they slowly increased in size. The affected skin was macroscopically normal, showing no redness, moisture or scaling. The hair was at first merely thinned out, but later the patches became completely bald. Joseph stated that the loss of hair was more conspicuous when the operation was performed bilaterally. To avoid repetition, we shall describe his technic more completely when speaking of our own work. Repeated examinations showed no evidence of parasites in the alopecic areas, nor was there any gross disturbance of sensibility, scratch marks being conspicuously absent in Joseph's cats. Normal control animals which were not subjected to operation showed no such alopecia. Sections from bald areas showed atrophy of the hair papillae plus complete absence of the hairs themselves, the former hair sites being indicated by a more or less prominent pigmentation. As a transition from the normal to this end-result, Joseph saw in some places the hair itself, still contained in its sheath but four or five times smaller than normal. In many preparations only the arrector pili muscle and the sebaceous gland remained, the hair having been completely destroyed. The sweat and sebaceous glands were unchanged. There was no trace of inflammation, only signs of atrophy.

Mibelli,[3] repeating Joseph's experiments, obtained eight positive results in thirty cats. In one instance, baldness did not appear until the forty-first day after operation. Mibelli emphasized the close resemblance between these bald spots and those of alopecia areata. Sections taken from two animals showed no atrophy of the hair follicles or papillae.

Samuel[4] also observed baldness in cats operated on according to the method of Max Joseph. He obtained uniformly negative results in rabbits. The skin was macroscopically normal. At first there was a mere thinning out of hair. The alopecia quickly became complete. Samuel observed such rapid regeneration of the hair at times that within five weeks the bald area could not be distinguished from unaffected regions. He mentions having seen alopecia begin on the fourteenth postoperative day.

Moskolenko and Gregoriantz,[5] Russian medical students, exhibited a dog before the Moscow Venereological and Dermatological Society,

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3. Mibelli, V.: Sulla patogenesi dell' Alopecia areata, Gior. ital. di mal. ven. **29**:416, 1888.

4. Samuel, S.: Ueber Dr. Max Joseph's atrophischen Haarausfall, Virchows Arch. f. path. Anat. **114**:378, 1888.

5. Moskolenko and Gregoriantz: Sitzungsb. d. venereol.-dermat. Gesellsch. zu Moskau, Feb. 17, 1899; Monatsh. f. prakt. Dermat. **28**:306, 1899.

which showed bald patches following section of the second cervical nerve peripheral to its ganglion.

Employing Joseph's method, Behrend [6] obtained negative results in nine cats. These animals were under observation for from seven to sixty-three days after operation.

Köster [7] observed alopecia in seven cats which were operated on according to Joseph's technic. The condition was unilateral three times and bilateral four times. He did not mention the number of animals employed. The average time between the operation and the onset of alopecia was fourteen days. In one instance, there was an interval of sixty-four days. In sections Köster found an absence of hairs in the bald spots; the hair papillae were atrophic and the sweat and sebaceous glands unchanged. Baldness occurred most often on the back of the skull near the ears; the summit of the skull seldom showed alopecia, and it was rare over the forehead. The loss of hair was usually bilateral and not infrequently symmetrical. The baldness was at times incomplete. Köster also mentioned the presence of ulceration in these animals, but without suppuration. He emphasized the slight tendency of cats to show the latter type of lesion. Unlike Joseph, who observed permanent baldness in his animals, Köster frequently observed a rapid regrowth of hair.

The most extensive contribution to this subject is the recent article by Aubrun [8] of Buenos Aires. He performed six kinds of operations on the second cervical nerve and its branches. These included: (1) extirpation of its ganglion, (2) extirpation of the posterior root, (3) removal of the anterior root, (4) removal of the roots and ganglion, (5) extirpation of the peripheral branches and (6) removal of the roots, ganglion and peripheral branches. Aubrun operated on a total of 118 cats in these experiments. In most cases alopecia appeared from the tenth to the twentieth day after operation. It simulated perfectly that seen in alopecia areata. The baldness sometimes showed a tendency to extend for a few days after its onset. A regrowth of hair often began within twenty or thirty days after its onset. Some animals showed baldness which was later replaced by exulceration. In them

6. Behrend, G.: Ueber Nervenläsion und Haarausfall mit Bezug auf die Alopecia areata, Virchows Arch. f. path. Anat. **116**:173, 1889.

7. Köster, Georg: Zur Physiologie der Spinalganglien und der trophischen Nerven sowie zur Pathogenese der Tabes dorsalis, Leipzig, Wilhelm Engelmann, 1900, p. 116.

8. Aubrun, Enrique: Pelada experimental de Max Joseph (Prurito e hiperesthesia por sección nerviosa), Rev. argent. de dermosifil. **15**:73, 1931. This is a synopsis of the author's thesis for the doctorate in medicine, which comprised 280 pages.

the regrowth of hair was considerably delayed, and if the lesion was sufficiently deep, a definite scar was formed.

The exulceration was of two types. One type affects the same locations as the alopecia. At first the affected surface is a uniform bright red, above which the follicular orifices project as more intensely red points. The exudation of a serosanguineous secretion is commonly observed, which gives to the patch the appearance of excoriated eczema or psoriasis that has been curetted. Sometimes such an area is bounded by a thin peripheral ring of alopecia. In other instances it merges directly into the normal skin. Such a lesion may remain for several weeks and then slowly heal, or it may even progress to real ulceration and subsequent cicatrization.

The other type of exulceration usually appears a relatively long time after operation. It does not appear on the same sites as the first one, but is usually located close to the operative incision and in the nuchal region. Aubrun stated that such lesions are frequently equilateral triangles, each side measuring from 1 to 2 cm.; sometimes they have the shape of an isosceles triangle. Aubrun offered the following results as showing the relationship of the anesthetic to the success of the operation. In thirty-four cats anesthetized with chloralose, there were twelve, or 35.29 per cent, positive results; in seven cats partially anesthetized with cloralose and later completely with ether, there was only a single positive result, or 14.28 per cent. In sixty-two cats anesthetized solely by means of ether, positive results were obtained in only three, or 4.83 per cent. In 118 experiments from 15 to 20 per cent of the animals showed alopecia and exulceration, dependent on the type of intervention.

EXPERIMENTS

At first we employed ether anesthesia, but soon abandoned it for chloroform, because the latter offered a greater margin of safety in our experience. Cats only were utilized for our experiments. The more mature animals, particularly those 1 or more years of age, proved more suitable than the younger animals, because the operative mortality was lower, and also because the ganglions and the nerve trunks were better developed. Males were used in the great majority of our operations.

The technic employed for the exposure and the removal of the ganglion of the second cervical nerve and its anterior and posterior roots coincided with the operation outlined by Max Joseph. It was done bilaterally. After the animal had been anesthetized, a median incision was made extending from the level of the occiput down to a point over the fourth or fifth cervical vertebra. After the skin and the superficial fascia were incised, the median raphe was reached and cut through. The nuchal muscles were separated by blunt dissection and the tissues

retracted, enabling the operator to see the spinal column just above the occiput and opposite the second cervical vertebra. The spinal ganglion of the second cervical vertebra lies deeply embedded in the muscles, 2 or 3 mm. from the median line and outside of the spinal canal. The second cervical nerve emerges, as Wilder has shown, and we have been able to verify it in thirty cats, between the arches of the atlas and the axis and not through a special intervertebral foramen as do its fellows. Waller is credited by Joseph with being the first to call attention to the favorable location of this nerve and its ganglion for experimental purposes. It has a glistening, wavy appearance, which readily differentiates it from empty vessels or connective tissue fibers. The ganglion is carefully severed from the cord, and then its anterior and posterior roots are dealt with likewise. In accordance with Joseph's recommendation, we removed from 2 to 3 and sometimes even 5 mm. of each root so as to allow of sufficient retraction of the severed ends. The muscles were brought together with catgut, and skin clips were used to close the skin incision.

As a rule, in adult cats the second cervical ganglion is the size of an ordinary pinhead, but occasionally it attains the dimensions of a glass-headed pin. The other cervical ganglions are located within the spinal canal and are therefore much less favorable for experimentation. In three instances we attempted to expose them, but invariably encountered a profuse and rapidly fatal hemorrhage.

Twenty-one cats were operated on according to Joseph's technic, and after the anatomic areas involved had been carefully studied in nine animals. Before operation each cat was carefully examined for alopecia or any other condition of the skin, and only those free from such defects were utilized. Four of these twenty-one animals died within from a few hours to two days after operation; hence they do not figure in our results. Six of the seventeen cats which survived showed postoperative alopecia. Some of the animals which did not exhibit alopecia were under close observation for three and even four months. In the six animals in which the results were positive, alopecia appeared as follows: cat 1, on the thirtieth day after operation; cat 2, on the twenty-sixth day; cat 7, on the fourteenth day; cat 8, on the sixth day; cat 9, on the fourth day, and cat 11, on the eleventh day. In most instances, the bald spots were located close to the occipital region, near the ears and over the throat. As a rule, they were bilateral and more or less symmetrical. In five of our cats there were multiple areas of alopecia. Cat 7 had only a single spot to the right of the occiput. The others showed bald spots as follows: cat 1, two spots; cat 2, three spots; cat 8, two spots; cat 9, four spots, and cat 11, two spots. Animals 8, 9 and 11 also presented unilateral bald areas over the throat. Multiple bald spots usually appeared in succession, the

intervals varying from three to forty days. The bald spots occurred in forty days in cat 2. In size, the areas of alopecia varied from that of a dime to 3 and even 4 cm., as was the case with the patch on the throat in cat 9. The areas were round or oval. A regrowth of hair was the rule, except in cats 2 and 7 on which biopsies were performed. They showed infection of the biopsy wounds followed by free suppura-

Fig. 1.—Section taken from cat 7. On the right side of the photomicrograph is seen normal tissue replaced by fibrous tissue. Near the center are sebaceous glands undergoing degeneration.

tion and scar formation after several months. In the smaller bald patches a regrowth of hair was sometimes completed within one month, while larger areas required eight or even ten weeks. The loss of hair was also a gradual process, necessitating several weeks to attain its maximum development. After remaining stationary for one or two weeks, the new growth of hair began to appear. We did not observe

exulceration or ulceration as described by Köster and Aubrun. One cat which was not listed as showing a positive result, two weeks after operation showed suppuration and baldness below the left shoulder which reached the size of a palm; this area was again normal within seven weeks. In this instance, there was considerable scratching, which, in our opinion led to the infection. In all of our animals save three (the one just referred to and those who were subjected to biopsy), the

Fig. 2.—Section taken from cat 7. Fibrous tissue has largely replaced the dermis.

sensory disturbances were unimportant. Frequently the bald areas showed slight hyperesthesia, but not enough to cause the animal to produce trauma at their sites.

HISTOPATHOLOGY

The histopathologic observations were reported by Dr. F. A. McJunkin.

Examination of Tissue from Cat 2.—The material was obtained on the seventy-second day after operation.

Serial sections were stained with hematoxylin and eosin. The most conspicuous changes were atrophy and disappearance of hairs, hair follicles and sebaceous glands in the area. Having lost its papillary markings, the epidermis stretched as a smooth layer over the surface. In places there was some hyperkeratinization. The dermis was much thickened, and consisted of fibrous tissue still well vascularized. At the margins of the lesion, here and there, cells of the hair matrix showed atrophy, irregular staining and karyolytic changes.

Examination of Tissue from Cat 7.—The material was obtained on the twenty-first day after operation; it was stained with hematoxylin and eosin.

The sections showed a 4 mm. stretch of epidermis with underlying dermis and subcutaneous tissue, entirely devoid of hairs, hair matrixes and sebaceous glands. In two places small amounts of dark granular débris representing undissolved remnants of hair shafts could be distinguished. At the margin of the lesion were atrophy, necrosis and solution of these epithelial structures. Beneath the epidermis there was considerable thickening of the connective tissue, as was also noted in cat 2.

Thus it is seen that the histologic changes resemble closely those attributed to alopecia areata by Sabouraud in his recent monograph dedicated to that disorder.

CONCLUSIONS

1. Bald spots may appear in cats following Max Joseph's operation.

2. The second cervical nerve and its ganglion are peculiarly fitted for such experimental work.

3. Alopecia occurred in our experiments in approximately one third of the animals so operated on.

4. The bald spots bear a close resemblance, both clinically and histologically, to those observed in alopecia areata.

5. Despite the apparent depth of this process, a regrowth of hair usually occurs.

Prof. F. A. McJunkin, Prof. T. E. Boyd and Dr. J. F. Kearney assisted us in the preparation of this paper.

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SPOROTRICHOTIC CHANCRE

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KENDAL FROST, M.D.

AND

O. A. PLUNKETT, PH.D.

LOS ANGELES

The present report is of moment only as it is, perhaps, the first report of a case of sporotrichosis in which simply the primary, or chancre, stage was manifested. It is of interest that the chancre was reproduced in a rat with recovery of the organism, and that a cultural pleomorphism was demonstrated following the single exchange of hosts.

The often vaunted ease with which one may demonstrate the presence of Sporotrichum was conspicuous by its absence. This might have been due to the strain of the fungus. Or possibly the observations of others were made on material obtained from secondary lesions. The necessity of making many cultures and inoculations in the presence of any intractable foreign lesion which may come to hand is adequately demonstrated, and we are of the opinion that any generalized statement regarding either ease of isolation or uniformity of results as applied to fungi should be accepted with no small degree of hesitation. They are, perhaps, the most elastic of all forms of vegetable life.

REPORT OF CASE

History.—On March 5, 1932, P. J. B., a white woman, aged 31, presented herself, complaining of "an infected finger." She had had the lesion for approximately five months. She believed that it followed a scratch, which healed rather slowly, only to break open a few days later. This procedure repeated itself. Gradually there occurred a thickening below and around the small hole in the skin. No pain was experienced, only tenderness and at times itching. After four months the lesion was opened by a surgeon. Following this, it refused to heal, gradually increased in size and became more tender. Good general health had obtained since the usual illnesses of childhood.

Physical Examination.—A general physical examination revealed no abnormalities beyond the lesion on the finger and a slightly palpable epitrochlear gland on the corresponding side. The blood count was normal. The Wassermann reaction was negative.

On the dorsum of the middle finger of the right hand, approximately over the junction of the middle and distal phalanges and on the dorsolateral aspect of the junction, was a small, rounded tumor of fairly firm consistency, approximately one-half inch (1.27 cm.) in diameter, surmounted by a small central ulceration containing scanty seropus. The lesion was fairly firm, and while the induration

appeared to extend downward and beyond the visible border of the tumor it was not bound down to the structures below, being movable.

To suspect syphilis is always in order. In this case, however, the marked swelling which practically always accompanies the extragenital syphilitic chancre, except in cases simulating paronychia, was absent, as was also the characteristic induration. The nodule was also decidedly tender, and a lapse of five months without any evidence of healing, especially following the trauma of incision, would be the exception rather than the rule in the primary chancre of syphilis. Because we believe that no test for syphilis is as absolute as the neoarsphenamine thera-

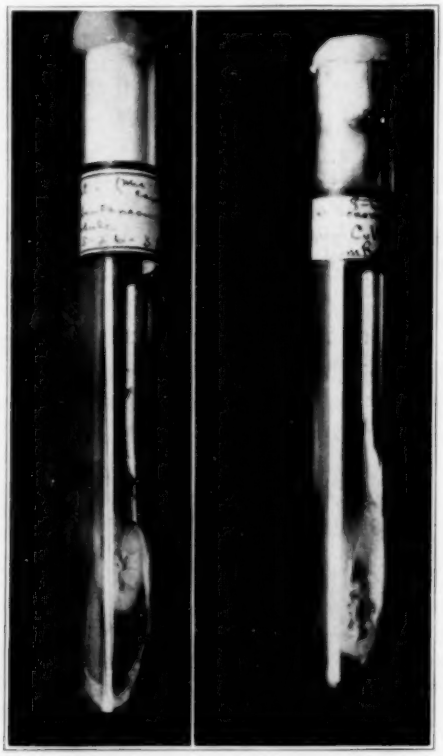

Fig. 1.—Pleomorphism following passage of culture of Sporotrichum through a rat. Note that the culture on the left has a flat, somewhat slimy surface with no raised central convolutions or feathery or spiky surface growth. All these features returned following successive transplantings on Sabouraud's medium as shown in the culture on the right.

peutic test, we gave the patient neoarsphenamine intravenously, with no evidence of repair in the lesion. Tuberculosis in other climes would be a warrantable consideration, but in this part of California tuberculosis of the skin is rare. The lesion was tentatively diagnosed as sporotrichotic chancre.

Biopsy Report on Tissue from Finger (Brem, Zeiler and Hammack).—In the sections studied, the epithelium was intact. Beneath it, particularly at one end of the sections, there was inflammatory infiltration. This occurred in one large

area and several small areas especially about blood vessels. Round cells and young fibroblasts were numerous, and occasional eosinophilic leukocytes were seen. The vascular endothelium was swollen. The inflammatory reaction did not appear to be of specific type. No fungi were found in routine or special stains (methyl green, pyronine).

Results of Cultural Studies.—Microscopically, many smears were negative as were also several teased out fragments of tissue. Several tubes of Sabouraud's culture medium which were inoculated with the seropus on subsequent visits manifested only bacterial growths.

Later five tubes of Sabouraud's medium were inoculated, three with seropus and two with fragments of the biopsy tissue. As demonstrated, those inoculated with seropus produced no growths. Both the tubes planted with tissue gave growths of similar macroscopic and microscopic characters. The tube at the extreme right manifested growth in about forty-eight hours; the central tube did not demonstrate growth for about ten days, approximately twenty-four hours before

Fig. 2.—The lesion as presented.

this photograph was taken. It is but indistinctly shown as a faint, nebulous halo surrounding the piece of tissue second from the top.

The growth in the tube on the left will be recognized as one of the ever present penicilliums. It is the commonest contaminant and is due to poor technic, rarely to faulty environment. These contaminants should be guarded against, as certain of the "tramps" are especially virile, and when they gain a foothold on the medium, there is often little hope of finding the true pathogenic fungus, as they seem to possess an inhibitory action on the growth of certain of the other fungi.

Results of Animal Inoculation.—In animal inoculation, painstaking, methodical plodding in spite of negative results must be emphasized as a major requirement; in this series, only one of several animals inoculated demonstrated any lesions, and, contrary to our expectation, in not one of the rats or guinea-pigs was orchitis produced following intraperitoneal inoculation. The only lesion produced was a superficial nodule following subcutaneous inoculation, somewhat similar to that produced in the human being. Both the tissue and the smear from the rat demonstrated many yeast forms and fragments of mycelia, from both of which cultural growths were obtained.

Biopsy Report on Tissue from Rat (Brem, Zeiler and Hammack).—Sections from the subcutaneous nodule showed the cavity to be lined by a narrow zone of

necrotic tissue beneath which was poorly vascularized granulation tissue. In the deeper layers were several small round cells and occasional small multinuclear cells. In the cavity was necrotic material in which a few filaments were seen.

Treatment and Course.—The patient came for treatment on March 5, 1932. This was instituted on March 18 by intravenous medication, sodium iodide, 15 grains (0.97 Gm.), being given approximatey every fourth day. No local medication was employed. On May 3, 1932, complete healing obtained.

Approximately seven months later the patient was requested to return for observation and for the making of photographic records. At this time, the area appeared even less prominent than on the date of her discharge, and the results of a general physical examination were normal.

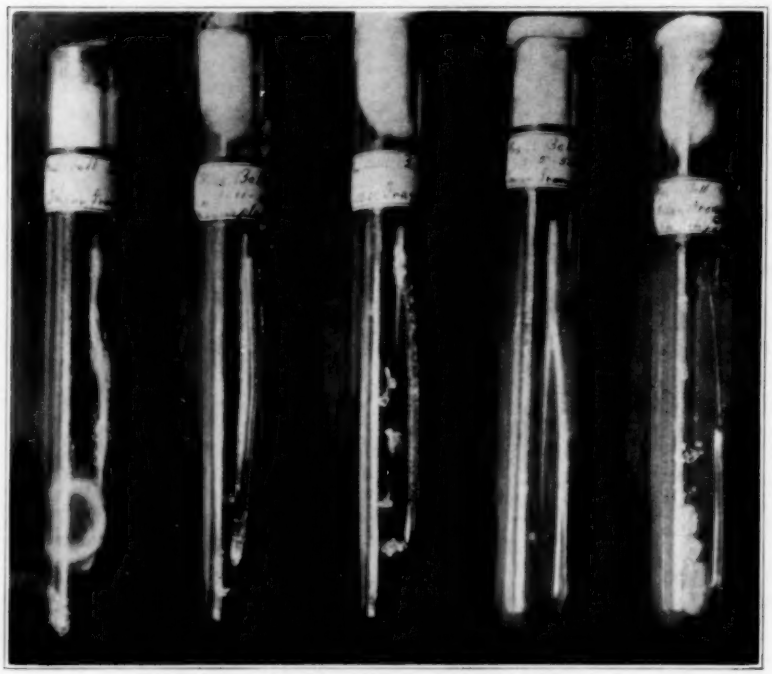

Fig. 3.—Growth from tissue fragments only.

CLASSIFICATION OF THE ORGANISM

The genus Sporotrichum is recognized by its faculty of producing pear-shaped conidia directly from the vegetative mycelium; these arise both laterally and from the tips of the mycelial filaments. A résumé of the literature on sporotrichosis leaves one in doubt as to whether there are one, two or several authentically described species of Sporotrichum parasitic to man in the United States. On a purely morphologic basis it is probable that all the species described as human pathogens fall within the limits of variant strains of S. schenckii. Biochemical and fermentation tests as a means of separating species of parasitic

fungi are entirely unreliable, and the majority of the separations of species on this basis are invalid. The present strain of Sporotrichum growing on a plate of Sabouraud's medium has a hyaline, frequently septate and branched mycelium from 3 to 4 microns in diameter. The conidia, varying in appearance from oval to pear-shaped, sometimes elongate, approximately from 3 to 5 microns by from 5 to 15 microns, are borne directly on the sides and ends of the mycelium. They are hyaline and vacuolate and resemble yeast cells.

The culture on agar is similar to that of other strains of Sporotrichum, being at first soft and creamy in texture with a moist and shiny surface, thus resembling a bacterial culture. Colonies on Sabouraud's medium are round or slightly angular with a contorted surface. The internal structure is of a homogeneous creamy color. The surface markings or stripings are gyrose, and the edges are lobate, with slightly feathery margins. No sign of chromogenesis has occurred in our cultures. The old colonies become firm in texture and pull off from the agar in elastic flakes.

The absence of color and the formation of few lateral conidia, together with other growth characters, bring the organism within the range of variation of S. schenckii. Therefore, in the light of our present knowledge of the genus Sporotrichum it is thought best to consider this organism as a variant strain of S. schenckii.

COMMENT

It is possible that some modification of the organism with respect to increased virulence occurs after it gains sufficient hold to accomplish a generalized invasion, and this might account for the ease with which other observers obtained orchitis in rats following intraperitoneal inoculation, a result impossible of attainment in our series.

HEREDITARY ECTODERMAL DYSPLASIA OF THE ANHIDROTIC TYPE

REPORT OF A CASE, WITH THE RESULTS OF BIOPSY

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Reports of major ectodermal dysplasias have been sufficiently infrequent in medical literature to warrant a brief review and the description of an unreported case involving hair, teeth and skin. The condition in this small group of cases, less than thirty in number, has been designated by Weech [1] as the anhidrotic type of hereditary ectodermal dysplasia because of the inability of the patients to perspire and because of the part played by inheritance. Most writers have eliminated syphilis and chemical injury (Jesionek [2]) during embryonic life as etiologic factors, and have attempted to explain the occurrence of this unusual condition on the basis of endocrine disturbances and heredity.

REVIEW OF THE LITERATURE

Credit for the earliest description of this type of case seems to belong to Thurnam,[3] who, in 1848, described a case in a man, aged 58 years, who showed typical symptoms. An autopsy on this patient was reported. Thurnam also described a second case, in much less detail. In this paper he stated that Danz, in 1792, had reported two cases in brothers who never had hair or teeth, but that he had given no further description of them. It is of historical interest to find these ectodermal anomalies described about one hundred and fifty years ago. C. J. B. Williams,[4] following the presentation of Thurnam's paper, briefly discussed another case, in a girl, aged 15 years, who never perspired, who had but three or four abnormally shaped teeth and whose hair was scanty and pigmentless. Guilford,[5] in 1883, appears to have been the

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From the Department of Pediatrics, Blodgett Memorial Hospital.

1. Weech, A. A.: Hereditary Ectodermal Dysplasia, Am. J. Dis. Child. **37:** 766 (April) 1929.

2. Jesionek, quoted by Strandberg.[12]

3. Thurnam, J.: Two Cases in Which the Skin, Hair and Teeth Were Very Imperfectly Developed, Proc. Roy. M. & Chir. Soc. **31:**71,1848.

4. Williams, C. J. B.: In discussion of paper by Thurnam.[3]

5. Guilford, S. H.: A Dental Anomaly, Dental Cosmos **25:**113 (March) 1883.

first American author to describe a similar case. Ascher,[6] in 1898, reported two cases in brothers. Tendlau,[7] in 1902, added one case. Loewy and Wechselmann [8] (1911) redescribed the patients in the last three cases and brought out the fact that the patient in Tendlau's case was an uncle of Ascher's two patients. J. H. Gibbs [9] (1915) wrote of two brothers whose anomalies belong to this group of dysplasias. Christ,[10] in 1913, described defects of the hair, teeth and skin in a boy, aged 13, and mentioned a brother with similar abnormalities. The second case in an American was described in 1917 by Blaisdell and Cunningham [11] and was reported as a case of congenital alopecia in a white boy, aged 4 years, whose defects included, besides scanty hair on the scalp and eyebrows, lack of hair follicles and extreme dryness of the skin, thickening and friability of the finger-nails and toe-nails and absence of all but four teeth in the upper jaw; the lower jaw showed no teeth and no tooth buds on roentgen examination. Serial sections of the skin taken from two different areas showed no sebaceous or sweat glands. Strandberg,[12] in 1918, Goeckerman,[13] in 1920, and MacKee and Andrews, [14] in 1924, each presented one new case and reviewed the literature up to their respective publications. C. F. Harris [15] presented a case before the Royal Society of Medicine in 1927, and described it as one of progeria. The patient, a boy, aged 4 years, had always had scanty hair, the skin was very dry, there was never any perspiration, and there were two malformed upper incisors and two upper premolars. A section of skin from the right axilla showed neither

6. Ascher, B.: Two Brothers with Anomalies of the Ears, Teeth and Skin, Ztschr. f. Ethnol. (Verhandl. d. Berl. Gesellch. f. phys. Anthol., Ethnol. u. Urgesch.) **30**:114, 1898.

7. Tendlau, B.: On Congenital and Acquired Idiopathic Cutaneous Atrophy, Virchows Arch. f. path. Anat. **167**:465, 1902.

8. Loewy, A., and Wechselmann, W.: Physiology and Pathology of Water Balance and Heat Regulation of the Skin Organs, Virchows Arch. f. path. Anat. **206**:79, 1911.

9. Gibbs, J. H.: Total Absence of Teeth in Two Brothers, Dental Rec. **35**:669, (Nov.) 1915.

10. Christ, J.: On Congenital Ectodermal Defects and Their Relations to One Another, Arch. f. Dermat. u. Syph. **116**:685 (July) 1913.

11. Blaisdell, J. H., and Cunningham, A. R.: Report of a Case of Congenital Alopecia, Boston M. & S. J. **176**:210 (Feb.) 1917.

12. Strandberg, J.: A Contribution to the Question of the Malformations of the Ectoderm Due to Arrested Development, Nord. med. Ark. **51**:1, 1918.

13. Goeckerman, W. H.: Congenital Ectodermal Defect with a Report of a Case, Arch. Dermat. & Syph. **1**:396 (April) 1920.

14. MacKee, G. M., and Andrews, G. C.: Congenital Ectodermal Defect, Arch. Dermat. & Syph. **10**:673 (Dec.) 1924.

15. Harris, C. F.: Proc. Roy. Soc. Med. **21**:227, 1928.

sweat glands nor ducts. In the discussion following the presentation, Dr. E. A. Cockayne [16] mentioned a case that he had seen some years previously, which was identical. Jean Smith,[17] in 1929, reviewed the literature and tabulated a list of fifteen cases. The case reported in her article was that of a boy, aged 6 years, who had downy, scanty hair, two deformed teeth in the region of the upper incisors and a marked intolerance for heat. Falconer [18] in the same year described a case in a boy, aged 6½ years, who had no hair on his head until he was 18 months of age, when a fine, downy, sparse growth was noted. Two upper teeth, which were cone shaped, were cut at 2 years, and the child suffered much discomfort in hot weather. A section of skin showed no hairs and no sebaceous or sudoriparous glands. Weech,[1] in the same year, described another case in the outstanding paper on the subject. Kerley,[19] in 1930, described a boy, aged 15 months, who had a marked intolerance for heat, for he suffered from high fever and convulsions on an especially hot day. His hair was very fine, downy and sparse. No teeth were present, and roentgenograms of the jaw failed to show any temporary or permanent tooth buds. Jamieson,[20] at a meeting of the Detroit Dermatological Society on Nov. 18, 1930, presented a girl, aged 17, who showed a sparse growth of fine, short hair over the scalp. The eyebrows and eyelashes were lacking. The nose was of the saddleback type, and chronic rhinitis was present. There were marked dental defects, and the sweat glands were lacking. This case was later reported in full by Gordon and Jamieson.[21] Recently, in a nonscientific periodical,[22] seven cases which apparently belong to this group were briefly described. Zeligs [23] reported a case in a boy, aged 10 months, and gave the observations at necropsy. The reported cases, which number under thirty, undoubtedly make up a small proportion of the number seen. Many patients with this dysplasia were probably considered to have congenital syphilis, glandular dystrophy or progeria.

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16. Cockayne, A. E., in discussion of paper by Harris.[15]

17. Smith, Jean: Hereditary Ectodermal Dysplasia, Arch. Dis. Childhood **4**:215 (Aug.) 1929.

18. Falconer, A. W.: Congenital Ectodermal Defect, Lancet **2**:656 (Sept. 28) 1929.

19. Kerley, C. J.: Hereditary Ectodermal Dysplasia (Weech) in a Boy Fifteen Months of Age, Arch. Pediat. **47**:639 (Oct.) 1930.

20. Jamieson, R. C.: Presentation of a Case, Arch. Dermat. & Syph. **23**:586 (March) 1931.

21. Gordon, W. H., and Jamieson, R. C.: Hereditary Ectodermal Dysplasia of the Anhidrotic Type, Ann. Int. Med. **5**:358 (Sept.) 1931.

22. "Turtle Folk," Time **17**:32 (Dec. 14) 1931.

23. Zeligs, M.: Hereditary Ectodermal Dysplasia, Anhidrotic Type, Am. J. Dis. Child. **44**:394 (Aug.) 1932.

REPORT OF CASE

History.—Gerrit V., aged 6⅓ years, was a full-term infant, weighing about 7 pounds (3,200 Gm.) at birth. He was breast-fed for more than a year, and received no cod liver oil during this time. He had no hair until he was 6 months of age, when scanty, downy fuzz was noted. Two cone-shaped teeth in the region of the upper incisors erupted at 8 months; the only molar erupted at 5 years. The skin had always been dry, with varying degrees of a papular, scaly, eczematoid eruption over the body. The patient had always been malnourished, the appetite being good during the cooler months, but practically absent during the warmer months. Intolerance for heat was always a very disturbing factor during the hot weather. To remain comfortable, he lay on the floor, frequently moistening his head, body and extremities from a nearby pan of water and consuming large quantities of cool liquids, but refusing warm foods. He had a shy, retiring manner, but seemed to be of average intelligence and had a retentive memory. He did not go to school, because of the ridicule to which he was subjected by other children.

The patient was the second of three living children. All three were full-term infants. The mother had one miscarriage. No history of tuberculosis, venereal infection, allergy or serious disease could be elicited. Both parents, of Dutch descent, were in good health. The mother had two widely separated, poorly shaped incisors in each jaw. The remainder of the teeth were normal. Before puberty she perspired very scantily. At the time of writing she perspired freely and remained comparatively comfortable during hot weather. Her hair was scanty. The oldest sister, aged 7 years, never had had incisors or canines in the lower jaw, which was underdeveloped and had a knife-like dental margin. In the upper jaw were four molars and one cone-shaped right incisor. The younger sister, aged 4 years, had eight molar and four canine teeth. There were but three small incisors in the lower jaw and two widely separated, poorly shaped upper inciscors. Both sisters had scanty hair on the scalp, but it was of fairly normal texture. Lanugo was present over their bodies. The maternal grandmother, who was living, had widely separated, cone-shaped teeth in the region of the incisors. This defect could not be traced in previous generations.

Physical Examination.—The patient was pale and undernourished. The height was 44¾ inches (113.7 cm); the weight, 39½ pounds (17,900 Gm.), with an average of 45 pounds (20,400 Gm.). The hair was dry and fine, downy, nearly pigmentless and extremely scanty. The scalp was dry and scaly, and there was an unusual prominence of the scalp veins. The eyebrows were practically hairless, and on the margins of the lids were a few fine, light-colored lashes. The supra-orbital ridges were prominent. The nose was flattened somewhat at the base but was not of the saddle type. The mucous membrane of the turbinates was red, swollen and covered with thick mucopurulent secretion, which offered considerable difficulty in nasal breathing. The sensations of smell and taste were present. The ears were normal in shape but protruded obliquely from the head. The lips were thick, tending to protrude, and rather pale, but the vermilion border was well defined. Radiating from the mouth were faint, fine lines, which appeared more atrophic than scarlike. The integument of the face was pale, smooth, dry and free of lanugo. There was a papular eruption on the face. The upper part of the cranium was normal in size and shape, except for the prominence of the supra-orbital region. The underdevelopment of the alveolar processes made the lower part of the face narrow, and an unusually recessive space was noted between the lips and chin. There were two widely separated

cone-shaped teeth in the region of the upper incisors and one upper right molar. No teeth had erupted in the lower jaw. Roentgenograms showed two permanent tooth buds in the region of the upper incisions and one tooth bud in the lower left molar region. There was no lanugo over the body and extremities. The skin was dry and white, and there was absence of sensible perspiration at all times. At the base of the neck, especially posteriorly and also on the flexor surface of the forearm and over the popliteal space, was a dry, red, scaly papular eczematoid eruption. The finger-nails and toe-nails were not abnormally shaped, but had always been dry and brittle, and had frequently fallen off following superficial paronychia. The throat was pale, and the tonsils were very large and ragged. Small glands were palpable in the cervical region and groins. The chest was thin, with slight flaring at the margins of the lower ribs. Expansion was equal. The lungs, heart and abdomen were normal. The spine, bones and joints were also normal. The genitalia were well developed. Neurologic examination revealed no abnormalities.

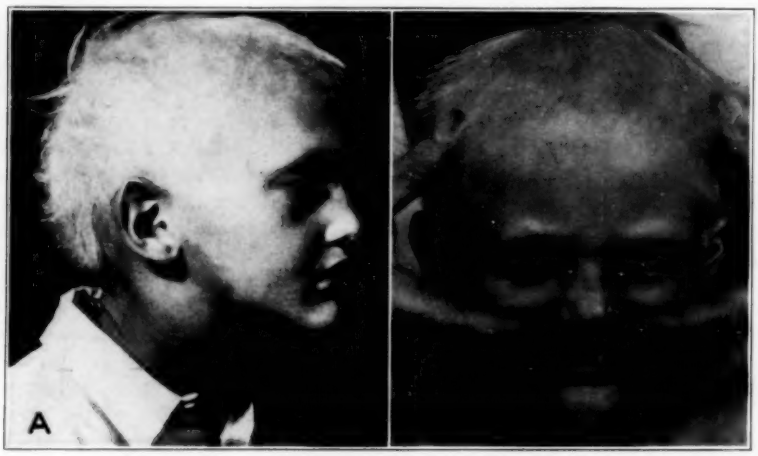


Fig. 1.—*A* shows the character of the hair, the prominent supra-orbital region, the thick, protruding lips and the ichthyotic folds of the skin of the neck; *B*, the cone-shaped incisors which are so common in this type of case.

Laboratory Examinations.—The hemoglobin was 70 per cent; the red cells numbered 4,700,000, and the white cells, 8,500. A differential blood count revealed: polymorphonuclears, 58 per cent; small lymphocytes, 30 per cent; large lymphocytes, 6 per cent; eosinophils, 2 per cent, and transitionals, 4 per cent. The Wassermann test of the blood was negative. The calcium content of the blood was 11.7 mg.; the phosphorus content, 2.8 mg., and the chloride content, 550 mg. per hundred cubic centimeters. The urine was normal on repeated examinations. Roentgenograms of the long bones and cranial bones showed that they were normal. The sella turcica was normal. The basal metabolic rate was not obtained because of lack of cooperation on the part of the patient.

REPORT OF BIOPSY

A summary of the report on a section of skin (fig. 2) obtained from the right axilla of my patient and examined by Drs. A. R. Woodburne and William E. German of the departments of dermatology and pathology, respectively, of Blodgett

Memorial Hospital, was as follows: The epithelium was of normal thickness. No areas of hyperkeratosis were present. The layers of the epidermis were well defined. The hematoxylin and eosin stains showed that the subcutaneous tissue was fairly dense. Examination of several sections failed to show any sweat glands or anlage of them. One section presented a rudimentary hair follicle and what appeared to be an undeveloped coil gland. The van Gieson stain showed a fairly well defined elastic layer below the basal layer of epidermis. Beneath this was a well defined

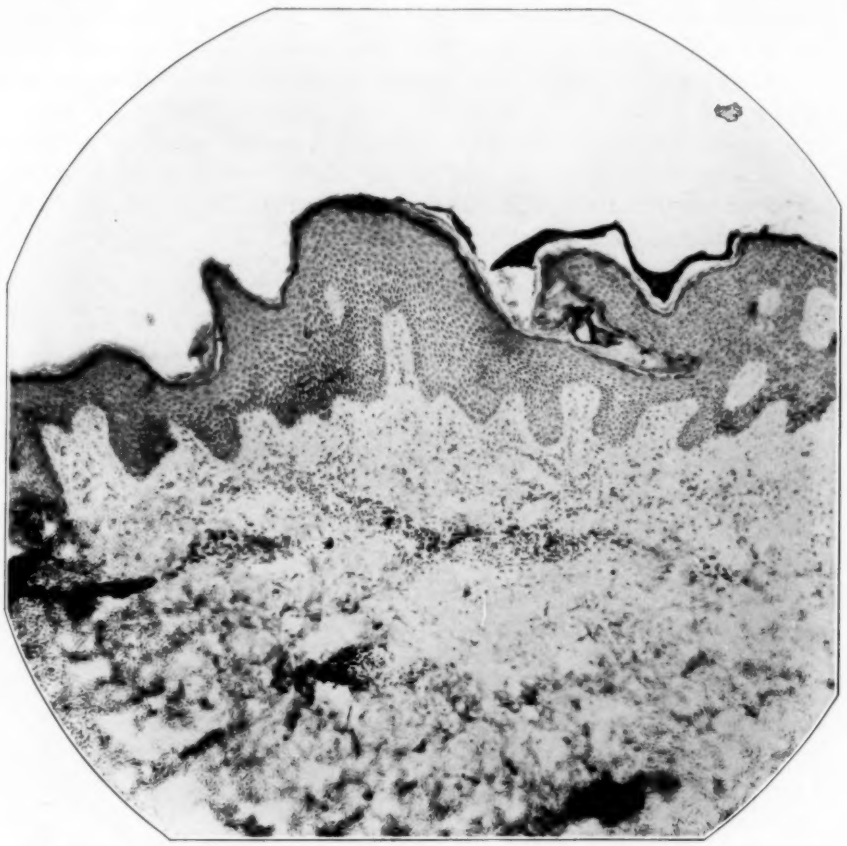


Fig. 2.—Photomicrograph of a section of the skin obtained from the axilla of the patient showing the epithelium of normal thickness, the well defined layers of epidermis, the moderate density of the subcutaneous tissue and the absence of sudoriparous or sebaceous glands, which is characteristic of this group.

fibrous layer with distinct fragmentation of collagen bundles. The elastic tissue appeared to be normal in amount and distribution and was without fragmentation. About some of the blood vessels there were a perivascular infiltrate of lymphocytes and a few plasma cells. The absence of sweat glands was due to their failure to develop and not to atrophy or degeneration.

COMMENT

On the whole, treatment for this type of defect is disappointing. Of the glandular products, thyroid extract has been most widely used. The use of thyroid extract for six months in the case reported brought no change in the condition of the skin, hair or teeth. Irrigations of the nose with a physiologic solution of sodium chloride and oil temporarily relieved the symptoms resulting from the atrophic rhinitis. The tendency toward eczema was diminished by the use of hydrous wool fat. Patients suffering from this group of anomalies should be urged to become self-supporting by providing themselves with employment in an office or other light employment in a location where a moderate climate prevails, as they do not tolerate extremes of temperature well. The general appearance, as well as the mastication of food, may be improved when the underdevelopment of the maxillae is compensated for by means of dental plates.

News and Comment

POSTGRADUATE COURSE IN DERMATOLOGY

The Barnard Free Skin and Cancer Hospital offers a course in dermatology and syphilology to graduates from a properly accredited medical school, who have spent one year in a properly accredited hospital. The course extends over a period of eight months from October 1 to June 1, 1934, and is to be limited to not more than twelve students and to not less than five.

The course is planned as a ground-work for those who wish to continue the study of dermatology with the object of specializing in that branch of medicine.

The course will include lectures and discussions on the structure, biology, physiology and chemistry of the skin, pathology and pathologic technic, bacteriology and mycology, and all phases of clinical dermatology and syphilis.

For full details of the course and other information address Dr. M. F. Engman, Jr., The Barnard Free Skin and Cancer Hospital, 3427 Washington Avenue, St. Louis, Mo.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOLOGY, EXAMINATIONS FOR CERTIFICATES

The American Board of Dermatology and Syphilology will hold written examinations for candidates for a certificate in group B (those physicians who have limited their practice to dermatology and syphilology for at least five years, including their period of training) on Saturday, Oct. 28, 1933, in the following cities: New York, St. Louis, Boston, Cleveland, San Francisco, Philadelphia and Chicago.

At this time applicants for a certificate are required to submit typewritten reports of ten cases personally observed, preferably in private practice.

The oral examinations for both group A (those who have limited their practice to dermatology and syphilology for ten years or more) and group B will be held on December 15 and 16 in New York City.

All applicants for a certificate who intend to take the examinations in group A or B must send their applications and other credentials to the office of the secretary before Sept. 1, 1933.

Application blanks and further information may be obtained from the secretary, Dr. C. Guy Lane, 416 Marlborough Street, Boston.

Obituary

JERE WILLIAMS LORD
1864-1933

Dr. Jere Williams Lord, the senior dermatologist of Maryland, died on Sunday morning, April 23, 1933, from uremia following an operation complicated by peritonitis.

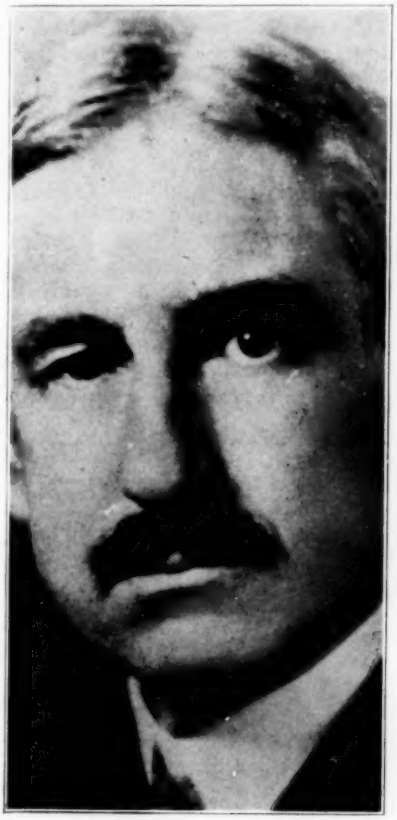
Jere Williams Lord was born in Portland, Me., Feb. 5, 1864, the son of John D. and Jannett R. (Williams) Lord. He spent his boyhood there. In 1879 he came to Baltimore because his father had entered the shipping business from this port. His college education was completed at the Johns Hopkins University in 1884, where he received the degree of A.B.; he was graduated in medicine at the University of Pennsylvania in 1887. After serving as resident physician in the Presbyterian Hospital of Philadelphia in 1888, he returned to Baltimore at the time that the Johns Hopkins Hospital was in the stage of organization. Since it was his desire to become a surgeon, he associated himself with the department of anatomy of the university, which was planning a school of medicine.

Dr. Lord's initial interest in dermatology may have been aroused through his studies under Duhring in Philadelphia, but he claimed that he began his work in Baltimore, in the Polyclinic Hospital, with R. B. Morison, who eventually inaugurated the clinic for skin diseases in the Johns Hopkins Hospital about 1899. It was probably from Morison and through visits in Europe about 1894 for postgraduate work that Dr. Lord acquired the fundamentals of his chosen field. Having by this time entered general practice, and gaining his special experience by means of his hospital connections, he was enabled to expand in almost ideal fashion his knowledge of dermatology. Morison's untimely death, at an early age, placed Lord at the head of the department which he served faithfully and enthusiastically. He now devoted his time exclusively to dermatology. Advancing rapidly through minor faculty positions, he became clinical professor of dermatology in the school of medicine in 1898; he held this position, together with that of visiting dermatologist to the Johns Hopkins Hospital, until 1930, when he resigned. His subsequent appointment as consultant dermatologist to the hospital terminated with his death.

Dr. Lord rose rapidly to an enviable position in the medical life of his city and state. As a convincing teacher and a sympathetic preceptor, he easily assumed the pedagogic requirements needed in the guidance of medical students. Possessed of an outstanding modesty—indeed modesty to a fault—he nevertheless was a vigorous supporter of measures looking to the betterment of any dermatologic endeavors, particularly during the growing years of this science.

Dr. Lord was a man of few words and of sound and thoughtful convictions. Of a high-strung temperament, his self control and appar-

ent abruptness were sometimes misunderstood. Yet for those associates who knew and appreciated him, there existed a naive kindliness tinged with a sly sense of humor, a deep love of truth and of fair play, and, as a free-thinker, an immense faith combined with an innate charity. These qualities were best seen in his devotion to his family and to everything which pertained to their welfare.



JERE WILLIAMS LORD, M.D.
1864-1933

He had no special hobby, but took enthusiastic pleasure in working his farm on the Severn River, his summer residence. As an exemplary host, he gave his guests an unassuming, informal, delightful hospitality.

In 1898, he married Evelyn Pope, who together with one daughter and two sons, survive him. One of these, L. Williams Lord, was associated in practice with him.

Dermatology has lost another loyal supporter, loyal in his devotion to its progress and to its ideals, and loyal to the precepts which are the unwritten law for the man of medicine.

Abstracts from Current Literature

EDITED BY DR. HERBERT RATTNER

EFFECT OF HEAT ON THE ANTIGENIC PROPERTIES OF MILK. J. H. LEWIS and H. C. HAYDEN, Am. J. Dis. Child. **44**:1211 (Dec.) 1932.

The authors show, by means of immunologic reactions, that there is a scientific basis for the fact that many persons sensitive to milk, especially raw or pasteurized cow's milk, can tolerate boiled, evaporated or dried cow's milk. The whey proteins of cow's milk are extremely heat-labile and suffer a progressively more marked reduction in antigenic activity as the temperature is increased. Casein derived from raw milk is relatively heat-stabile, no change being noted in its antigenic reactivity until the temperature exceeds 100 C. They point out that it is difficult to determine to what extent the better tolerance of boiled or superheated milk (Smaco 303) depends on the denaturation of proteins and to what extent on the greater ease of digestibility.

CONGENITAL SYPHILIS. M. H. ROBERTS, Am. J. Dis. Child. **45**:461 (March) 1933.

Roberts reports an interesting study of congenital syphilis in 903 Negro infants. The mothers of 850 of the infants had syphilis, but while the blood of 53 of the infants was positive, that of the mothers was negative. Two hundred and forty-three of these infants were syphilitic, while 607 were nonsyphilitic. Thirty-seven per cent of those with syphilis had a negative Wassermann reaction of the cord, indicating that such a reaction does not eliminate the possibility of syphilis.

In the studies covering a period of six years, it was disclosed that an infant born of a syphilitic mother, who reaches the fourth month of life without physical or serologic evidence of the disease will probably escape the infection. A small percentage (4.7) of infants who were later proved nonsyphilitic had a positive Wassermann reaction of the cord.

ACUTE LUPUS ERYTHEMATOSUS. J. M. LYON, Am. J. Dis. Child. **45**:572 (March) 1933.

Two fatal cases of lupus erythematosus in children are reported by Lyon together with autopsy observations. One child was 1 year of age and the other 11½ years. In neither was there clinical or autopsy evidence of tuberculosis. From a review of the literature and his own two cases, the author believes that the following symptoms should be especially considered in making a diagnosis of acute lupus erythematosus: erythematous cutaneous lesions, rheumatoid pains, hemorrhagic tendencies, high fever and leukopenia.

CALCINOSIS CIRCUMSCRIPTA. W. W. SWANSON, W. G. FORSTER and V. IOB, Am. J. Dis. Child. **45**:590 (March) 1933.

A case of calcinosis circumscripta in a female infant of 6 weeks is reported. These abnormal deposits of calcium were present in the skin and in subcutaneous tissues of the lower extremities. Recovery was complete without treatment in six months.

MALIGNANT PEMPHIGUS IN A CHILD. D. E. H. CLEVELAND, Am. J. Dis. Child. **45**:599 (March) 1933.

A fulminating case of apparent pemphigus in a Chinese girl, aged 8 years, which ended in death within five days from the onset of symptoms, is reported by Cleveland.

ANDERSON, Los Angeles.

VACCINIA OF THE EYELIDS AND CONJUNCTIVA. M. L. FOLK and E. L. TAUBE, Am. J. Ophth. **16**:36 (Jan.) 1933.

The case reported by Folk and Taube brings the total of reported cases to ninety-nine. Two forms of the disease are recognized, a diffuse ulcerative, membranous blepharoconjunctivitis and a type showing a typical umbilicated vacciniform pustule. Both types may be found in the same person. In only twenty-five of the reported cases was the condition the result of homo-inoculation; in the others it resulted from contact, in mothers, nursemaids and vaccinators. The authors' experiments with rabbits show that mere contact of the lid margins with vaccine lymph or serum from the pustule without friction may cause vaccinia, whereas vaccinia of the skin of the lids is almost always preceded by trauma. The condition is apparently self-limited and the prognosis is good, the cornea being involved in only about 10 per cent of the reported cases.

WIEDER, Milwaukee.

STUDIES ON RINGWORM FUNGUSES WITH REFERENCE TO PUBLIC HEALTH PROBLEMS. LEE BONAR and ALICE DREYER, Am. J. Pub. Health **22**:909 (Sept.) 1932.

Studies were carried out to determine whether the ringworm fungus is capable of growing on materials commonly found on the floors of showers and dressing-rooms. Such material was collected, sterilized, inoculated with Trichophyton interdigitale and kept at room temperature. The fungus grew rapidly on such material as hair, wool, silk, horn and feathers and on algal growth collected from damp floors. On these materials the fungus remained viable after long periods of drying.

An effort was made to discover a floor disinfectant that would be nonirritant to the skin of the feet. A 1 per cent solution of sodium hypochlorite requires one hour or longer to kill the fungus borne in scales of the skin. The thermal death point of cultures grown in fabrics showed complete killing in ten minutes at 75 C. The usual methods used in power laundries in general destroy the fungus. Standard dry cleaning solvents, however, have a negligible killing action after exposure of from one to two hours.

PARKER, Rochester, N. Y. [AM. J. DIS. CHILD.]

ULTRAVIOLET IRRADIATED PETROLATUM. EUGENE H. EISING, Am. J. Surg. **19**:244 (Feb.) 1933.

Among the conditions successfully treated with this preparation were three cases of granuloma inguinale, six cases of carbuncle and cases of varicose, trophic, decubital and diabetic ulcers. This is a brief clinical report based on the experience of the author and of others. References are furnished to papers which deal with the therapeutic, physical, chemical and bacteriologic properties of petrolatum irradiated with ultraviolet rays.

RATTNER, Chicago.

PROGRESSIVE POST-OPERATIVE CUTANEOUS GANGRENE. HOWARD ALEXANDER PATTERSON, Ann. Surg. **46**:1091 (Dec.) 1932.

The author describes a type of progressive, slowly advancing postoperative gangrene of the skin which is apparently a clinical entity. The gangrene in the reported cases reviewed began from seven to eighteen days after operation (drainage for suppurative appendicitis, thoracotomy, and in one case drainage for an abscess of the breast). The process usually remains superficial, beginning in a wound caused by retention of a suture. The advancing margin is preceded by a wide bluish zone; the margin itself consists of a thin black rim which leaves behind a dirty grayish slough. As the slough separates, a clean granulating surface appears, and gentle pressure at the border expresses many small beads of pus from beneath the advancing border. The condition is extremely painful. Bacterio-

logic studies show the process to be due to the symbiotic activity of a small streptococcus that prefers a low oxygen tension and of a staphylococcus. The only effective treatment consists of wide excision either with a cautery or with a scalpel. The use of tension sutures in drained incisions predisposes to the development of this complication, probably because of reduction of oxygenation by compression of the vessels in the area affected.

SYPHILITIC LEG ULCERS. REGINALD A. CUTTING, Ann. Surg. **47**:85 (Jan.) 1933.

This study is based on one hundred cases of ulcer of the leg, presumably of syphilitic origin, in Negro men. The diagnosis is based on clinical factors only, the reasons for which are explained at some length. Although 66 per cent gave a history of previous genital lesions, the Wassermann test was positive in only 37 per cent of the patients, a fact explained by the author as due to the insensitive antigen employed in the test. A history of trauma was obtained in 43 per cent of the cases. In 65 per cent the ulcer had been present for less than six months, in 25 per cent for more than one year and in 12 per cent for more than five years. The patients varied in age from 15 to 82 years, the average age being 39.8 years. The average interval between the genital lesion and the lesion on the leg was 16.3 years. The author is unable to substantiate the dictum that syphilitic ulcers occur most commonly on the upper third of the leg. In 35 per cent of the cases the lesions were multiple. While the necessity of systemic therapy in this type of case is admitted, the importance of adequate local measures is stressed, and topical therapeutic aids are considered in detail with comments based on the author's experience.

WIEDER, Milwaukee.

SYPHILITIC AMYOTROPHY. R. P. MACKAY and GEORGE HALL, Arch. Neurol. & Psychiat. **29**:241 (Feb.) 1933.

The authors report four cases of progressive muscular atrophy due to syphilis. The first patient was a man in whom, during vigorous antisyphilitic treatment, syphilitic amyotrophy developed; in spite of continued therapy, the condition grew steadily worse until death. In the second patient amyotrophy developed after inadequate antisyphilitic treatment and improved promptly under treatment with mercury and iodides. The third patient's condition was not affected by treatment. The fourth patient was a woman in whom amyotrophy began, progressed and ceased without treatment. The authors believe, however, that vigorous antisyphilitic treatment, because of the hopeless condition, is indicated, and they recommend a judicious combination of arsphenamine, tryparsamide bismuth, mercury and artificial fever.

RATTNER, Chicago.

SCLEREMA NEONATORUM. W. E. ALLYN and J. J. MAREK, Arch. Pediat. **50**:59 (Jan.) 1933.

A premature baby with an enlarged thymus began to show positive symptoms of sclerema neonatorum in its first twenty-four hours. During the second twenty-four hours, the condition extended over the whole body. There was complete recovery from treatment with hot baths and small doses of ipecac. Recovery from this condition is unusual.

AUTHORS' SUMMARY.

EXPERIMENTS DEMONSTRATING THAT ACQUIRED IMMUNITY IN SYPHILIS IS NOT DEPENDENT UPON ALLERGIC INFLAMMATION. A. R. RICH, A. M. CHESNEY and T. B. TURNER, Bull. Johns Hopkins Hosp. **52**:179 (March) 1933.

Rich and his co-workers bring forth definite experimental evidence that allergic inflammation is not necessary for the operation of acquired immunity in syphilis of the rabbit. Allergy and immunity have ordinarily been considered as parts of the same underlying process. This is denied by Rich, who points out that the greater portion of the work done on the relationship of allergy to immunity has

been carried out in experimental work on the guinea-pig with tuberculosis. While it is true that in tuberculosis in the guinea-pig, allergy and immunity ordinarily develop together, yet there is no experimental work recorded in which allergy has been shown to be necessary for immunity under any condition in any infection.

They point out also the well known fact that persons in the primary stages of syphilis are refractory to the inoculation of material from their own chancres but not to the material from a soft chancre (chancroid). This experimental work shows that in man immunity is present in the absence of allergy as early as the primary stages of the disease.

ANDERSON, Los Angeles.

THE ISOLATION OF SPIROCHAETA PALLIDA FROM THE LESION OF GASTRIC SYPHILIS. SEALE HARRIS, JR. and H. J. MORGAN, J. A. M. A. **99**:1405 (Oct. 22) 1932.

Partial gastrectomy was performed for a suspected carcinoma of the stomach in a Negro, aged 50. The patient gave a history of a penile lesion many years before, and the Wassermann test of the blood was positive. Grossly the gastric lesion was inflammatory rather than neoplastic. Microscopic examination showed syphilitic changes, and with the Levaditi stain spiral forms were demonstrated in the tissues. A suspension was made from portions of the gastric lesion and from an enlarged regional lymph gland; this was injected into the testicles of rabbits. Typical testicular syphilomas developed, from which Spirochaeta pallida was demonstrated by dark-field examination. Spirochetes recovered from the gastric lesion and from the regional lymph gland were transferred repeatedly in rabbits, and in all produced the characteristic lesions of experimental syphilis.

LYMPHOPATHIA VENEREA (LYMPHOGRANULOMATOSIS INGUINALIS). M. B. SULZBERGER and FRED WISE, J. A. M. A. **99**:1407 (Oct. 22) 1932.

The authors describe the varied clinical manifestations of lymphopathia venerea, and in addition to the inguinal variety usually seen in men they discuss the types occurring in women, such as esthiomene, so-called anorectal syphiloma and rectal stricture. All forms give a positive reaction to the Frei test, the technic and interpretation of which are given in detail. Successful inoculation of animals has been a great step toward establishing the etiology of this disease. Treatment is far from satisfactory, but much is expected of a further development of vaccine therapy.

RAYNAUD'S DISEASE. E. V. ALLEN and G. E. BROWN, J. A. M. A. **99**:1472 (Oct. 29) 1932.

The authors report a study of 147 uncomplicated cases occurring in a series of 204 cases of Raynaud's disease seen at the Mayo Clinic. The requirements for diagnosis were: (1) intermittent attacks of discoloration of the acral parts, (2) symmetrical or bilateral involvement, (3) absence of clinical evidence of occlusive lesions of the peripheral arteries, (4) gangrene or trophic changes, when present, limited in a large degree to the skin, (5) a minimum duration of two years and (6) absence of organic disease to which the vasomotor changes might be secondary. The study indicates that Raynaud's disease is ordinarily an equivalent of psychoneurosis or neurasthenia, and that operation on the sympathetic nervous system is the best method of treatment.

BASOPHILIC ADENOMA OF THE PITUITARY (PITUITARY BASOPHILISM-CUSHING SYNDROME). R. C. MOEHLIG, J. A. M. A. **99**:1498 (Oct. 29) 1932.

A case of the rare syndrome of pituitary basophilism is reported in a woman, aged 43, in whom symptoms appeared one year following complete hysterectomy and bilateral oophorectomy. The symptoms which were characteristic were: adiposity of the face, neck and trunk; small stature and shortness of the extremities;

dry and scaly skin with several large, brownish, shiny pigmented patches on the thigh, chest and arms; purplish striae on the abdomen; ecchymoses with spontaneous bleeding into the skin; marked hirsutism with a livid countenance and masculine characteristics; acroparesthesia; vascular hypertension; hyperglycemia; polycythemia; leukocytosis; multiple pains in the joints; polyphagia and polydipsia; dyspnea with choking; vertigo and blurring of vision; insomnia; headaches; nervousness and palpitation, and increased basal metabolism. Postmortem examination showed a rapidly growing papillomatous basophilic adenoma in the anterior lobe of the pituitary gland.

BISMUTH IN TREATMENT OF CARDIOVASCULAR SYPHILIS. L. M. BLACKFORD, with the collaboration of J. H. BOLAND, J. A. M. A. **99**:1902 (Dec. 3) 1932.

The authors report a therapeutic study of one hundred cases of syphilis of the aorta and fifty cases of heart disease with syphilis, occurring in Negro outpatients. The work was done under great difficulty because the patients could not be hospitalized or kept at rest, and many were forced by poverty to return to heavy manual labor as soon as possible. The intramuscular injection of sodium bismuth tartrate was found to be of great value in relieving the pain of aortic syphilis and in producing marked clinical improvement in heart disease associated with syphilis.

NEURODERMATITIS OR IRRITANT DERMATITIS? HERBERT RATTNER, with comments by WILLIAM ALLEN PUSEY, J. A. M. A. **99**:1934 (Dec. 3) 1932.

A man, aged 26, for sixteen years had had repeated attacks of a condition which had been diagnosed as seborrheic dermatitis. Two weeks after he was married an acute dermatitis developed on the face and neck and the upper half of the body. He had a psychoneurosis, an anxiety state, and it was assumed that the dermatitis had a neurogenous origin. It was subsequently shown that the condition was excited by the perfumed cosmetics which his wife used, and the etiologic relationship was confirmed by strongly positive patch tests obtained with these articles. The author takes exception to the use of the term neurodermatitis for a neurogenous dermatitis as it leads to confusion with neurodermite (Brocq).

In commenting on this case report, Dr. Pusey states that the insistence on the importance of nervous factors as a cause of eczema and of many other dermatoses is a backward step into an old maze of conjecture. Irritant dermatitis may have many predisposing factors, as may tuberculosis or scabies; but just as the tubercle bacillus or the itch mite is responsible for those diseases, so does irritant dermatitis depend on an external irritant. When nervous causes of eczema are accepted only after all other factors have been excluded as far as possible, few cases of nervous eczema will remain.

CARO, Chicago.

FALLACIES AND MERITS OF SENSITIZATION TESTS. G. L. WALDBOTT, J. Michigan M. Soc. **31**:698 (Nov.) 1932.

As common errors in the use of skin tests Waldbott lists the following: (1) the idea that the degree of cutaneous reactivity parallels clinical sensitization, and that the tests are necessarily the most important procedure in managing the allergic patient; (2) the frequency of negative reactions in asthma of long duration, in old age, from old testing substances and when tests follow the administration of epinephrine or ephedrine, and the assumption of negative reaction when the reaction is delayed (also tests with extracts of raw food substances may be negative while the cooked food produces a reaction); (3) the inconclusiveness of test substances containing histamine or similar material and of extracts from strongly concentrated foods, as well as from bacterial proteins; (4) the differences in reactivity of the skins of some persons and of various areas of the skin in the same person.

A positive test can be considered as an indication of past, present or future clinical sensitivity. As to technic, the scratch method, with fresh fluid extracts,

is advised for general work. With insensitive skins, any reaction greater than others is to be noted. Passive transfer testing is sometimes necessary, while the patch test may be used in cases of dermatitis and conjunctival tests in pollen-sensitive patients with negative reactions of the skin. The history, the food diary, elimination tests and observation are always important. As to the test substances, it should be remembered that any substance, protein-containing or not, may cause allergic symptoms. Suggestions as to the more important ones are given.

SMITH, Ann Arbor, Mich. [AM. J. DIS. CHILD.]

ETIOLOGY OF HODGKIN'S DISEASE. C. E. VAN ROOYEN, Brit. M. J. **1**:50 (Jan. 14) 1933.

Pathologic material obtained from six cases of Hodgkin's disease were examined by direct cultural methods for the presence of the avian tubercle bacillus, and histologic sections were examined for acid-fast organisms, both with negative results. Emulsions of tissue proved to be noninfective to rabbits, guinea-pigs, pigeons and chickens on intravenous, intraperitoneal and intramuscular administration. Attempts to graft lymphadenomatous material obtained from an acute case of Hodgkin's disease into the bone marrow, peritoneum, liver and muscles of chickens have likewise failed. The pertinent literature is reviewed.

AUTHOR'S SUMMARY.

RECURRENCE OF MALIGNANT PUSTULE. H. C. SINDERSON, Brit. M. J. **1**:612 (April 8) 1933.

A man who worked with sheep's wool had two attacks of cutaneous anthrax at intervals of sixteen months. The second attack was much more mild than the first. Subcutaneous injections of serum affected a cure each time.

RATTNER, Chicago.

A CASE OF CARDIOVASCULAR SYPHILIS IN A BOY. H. L. HEIMANN, South African M. J. **6**:377 (June 11) 1932.

The author reports in abbreviated form a case of cardiovascular disease in a 13 year old boy. The cardiovascular changes are thought to have been due to congenital syphilis for the following reasons: (1) a history of syphilis; (2) destruction of the soft palate; (3) lack of a history of rheumatism and absence of initial stenosis, and (4) the character of the enlargement of the aorta.

GONCE, Madison, Wis. [AM. J. DIS. CHILD.]

REMOTE PROGNOSIS OF ERYTHEMA NODOSUM. E. LESNE, V. BOUGUIEN and P. GUILLIAN, Arch. de méd. d. enf. **36**:21 (Jan.) 1933.

Between the years 1920 and 1932, these clinicians had thirty-nine patients with erythema nodosum under observation at the Trousseau Hospital. Practically all of the children were followed for the entire period of their illness; each patient had an intensive investigation of his antecedents, with the view of determining the extent of exposure to tuberculosis; each one had a series of stereoroentgenograms, preserved for comparative study, and the entire group was subjected to the various tests of the skin with tuberculin.

In seventeen of the children, or 43 per cent, there was a definite history of family infection, a much higher proportion than that reported recently by Gueissaz, who found only 8 per cent of his series of two hundred patients to have been directly exposed to open tuberculosis. The writers feel that their unusual findings may be due to the fact that their patients were drawn from the poorest elements in the city, and also to the fact that the children were selected by experienced social-medical workers.

Roentgen studies revealed calcareous lesions in every case of erythema nodosum, conforming in all respects with the familiar picture of hilar involvement in the

primary infection of infancy. Likewise, all patients gave a positive reaction to tuberculin, many of them to the point of vesiculation. These facts seem to justify the contention that the disease is essentially a manifestation of tuberculosis, with a terrain favorable to the development of any one of its well known lesions.

An extremely interesting report is made on the subsequent fortunes of these children; twenty-two among the thirty-nine who have thus far been completely checked are well, although during the twelve years they sustained serious extension of their infection, such as serofibrinous pleurisy or tuberculous pneumonia. There were no instances of tuberculous meningitis or miliary tuberculosis, and so far as is known, there were no fatalities.

The authors feel that they can declare that the ultimate fortunes of children with the eruption will be good, but do not deny that, in their own cases, the particular care the children enjoyed undoubtedly influenced the mortality. Separation from the family and removal to salubrious marine or mountain resorts with meticulous attention to rest and diet are credited in full measure for the results.

AMESSE, Denver. [AM. J. DIS. CHILD.]

TABETIC SYNDROME: TROPHIC DISTURBANCES; PLANTAR PERFORATING LESIONS; ANALGESIC PSEUDOWHITLOWS OF THE FINGERS IN A GIRL SIX YEARS OLD; HEREDITARY SYPHILIS. M. WEILL-HALLE and CLAIRE VOGT, Bull. Soc. de pédiat. de Paris **30**:29 (Jan. 19) 1932.

An interesting neurologic case is reported. By differential diagnosis, syringomyelia, leprosy, Friedreich's ataxia and Dejerine's hypertrophic interstitial neuritis are eliminated, and the case is considered as one of infantile tabes despite repeatedly negative Wassermann reactions of the blood and spinal fluid. Antisyphilitic treatment was followed by immediate improvement.

NERVOUS DISTURBANCES IN "EPIDEMIC MILIARIFORM EXANTHEM OR MILIARY SWEATING" IN CHILDREN. A. STROE, P. THEODORINI and S. CHISER, Bull. Soc. de pédiat. de Paris **30**:427 (April 2) 1932.

The authors report a series of cases of the disease, which occurs in epidemics, and refer to three previous publications by them concerning it. The cardinal features are profuse sweating, fever and a miliariform exanthem which is followed by a branny desquamation of the entire skin except that of the palms and soles. It occurs chiefly in children less than 2 years old, occasionally in children from 2 to 10 years old and rarely in older persons. They observed it in two nursemaids of 17 and 19 years, respectively. The blood picture shows lymphocytosis, with a count of from 60 to 80 per cent, and an increase in the number of eosinophils. They describe the form of the disease which is accompanied by nervous and mental symptoms and list the latter under three headings: (1) increased intracranial pressure, which is the most common, (2) meningeal involvement, which is rare, and (3) encephalitis, which may have sequelae. They believe that the infectious etiologic factor in this disease, presumably a virus, has distinct cutaneous and neurotropic affinities and therefore produces disturbances of the skin and of the nervous system. They mention that encephalitis has been produced in the rabbit by inoculation into the cornea of material obtained from some of the vesicles in this disease.

BENJAMIN, Montreal, Canada. [AM. J. DIS. CHILD.]

LOCAL EFFECT OF INSULIN ON CANCER OF THE SKIN. S. F. GOMES, Tumori **6**:140, 1932.

The local application of insulin on ulcerated cancers of the skin produced healing of the ulcers and partial disappearance of the malignant growth. The epithelium which covered the treated ulcers was similar to normal squamous epithelium, and the neoplastic tissue on the margin of the ulcers underwent regressive, fibrous changes. In one case three fifths of the tumor disappeared under the treatment. Cancer of the skin seems to possess a specific sensibility for insulin; in this respect it differs from the medullary forms of carcinoma.

HISTOLOGIC CHANGES IN LYMPH GLANDS IN CANCER. N. MONTANINI, Tumori **6**:328, 1932.

The author studies the histologic picture of 800 lymph glands from 280 patients with cancer. Three groups of reaction are described. One group of glands showed an inflammatory reaction with hyperemia and hyperplasia of the lymphatic tissue. A second group showed marked hyperplasia of the reticulo-endothelial apparatus. In the third group marked fibrosis with atrophy of the glandular tissue was evident. Metastasis was found mainly in the third group. The first group showed a few malignant cells in the sinus, and the second group was always free from metastasis. The hyperplasia of the reticulo-endothelial cells in lymph glands of patients with cancer represents, therefore, a strong defensive reaction in the glands which protects them from invasion by the tumor cells.

VON HAAM. [ARCH. PATH.]

THE FREQUENCY OF SYPHILIS IN DISEASES OF THE DIGESTIVE SYSTEM. C. BONORINO UDAONDO, Rev. argent. dermatosifil. **16**:33 (Nov.) 1932.

According to the author, syphilis of the stomach and intestines is very rare. Gastric or intestinal disease in a syphilitic person does not necessarily mean that syphilis is the etiologic factor in the gastropathy. In 393 cases of gastric ulcer seen and tabulated by the author, 78 were in persons with syphilis, but in only 2 of these was it demonstrated that the gastric ulcer was of syphilitic nature. In many hundreds of gastric tumors, the author has seen only 1 case of gumma of the stomach situated in the prepyloric region, in which a diagnosis of malignant tumor was made, but syphilitic treatment effected a cure which still persists after fourteen years. In all the Argentine literature there are only 24 cases of gastric syphilis and 11 cases of intestinal syphilis, undoubtedly proved.

VACCINE TREATMENT OF ACTINOMYCOSIS. PABLO NEGRONI, Rev. argent. dermatosifil. **16**:45 (Nov.) 1932.

A culture of Actinomyces bovis and Actinomyces asteroides in Sauton's medium was filtered through a Pasteur L 3 filter, 0.1 per cent of formaldehyde was added, and this vaccine was injected into the lesions in five cases of actinomycosis of the jaw. There was an apparently complete cure after from six to fifteen local injections. The subcutaneous use of this vaccine is not as effective as the local injection in the diseased tissues.

CHANGES IN THE BLOOD IN LEPROSY. JOSE J. PUENTE, Rev. argent. dermatosifil. **16**:53 (Nov.) 1932.

The changes in the blood in 296 cases of leprosy was studied for five years. The Wassermann reaction was positive in 56.4 per cent, the Kahn reaction in 20.6 per cent and the Besredka reaction in 85.5 per cent. The reactions become more frequently positive as the disease grows worse. In some cases the positive reactions are due to coexisting syphilis, and this may be suspected in the early cases of leprosy with positive tests. In these cases antisyphilitic treatment reverts the positive reactions to negative. In advanced cases of leprosy the diagnosis of syphilitic lesions may be difficult, as the clinical lesions are masked and mixed with those of leprosy. In twenty cases coming to autopsy only two showed visceral syphilitic lesions, and ten of the patients had positive reactions during life. In a great percentage of cases of the most grave forms of leprosy, all the tests are positive, and antisyphilitic treatment has no effect on these reactions. In early cases of leprosy, patients usually have negative reactions, or if positive, they may easily become negative when the lesions improve or remain unactive. In these cases the negativity of the reactions is of good prognosis.

THE INADEQUATE THERAPEUSIS OF SYPHILIS. JOSE LUIS CARRERA, Rev. argent. dermatosifil. **16**:95 (Nov.) 1932.

This is a critical review of the therapeutics of syphilis as practiced in Argentina. The author condemns the diagnosis of syphilis made on the grounds of a persistent lymphocytosis, which many Argentinian physicians consider as typical of the disease. He warns against considering all aortic disease as syphilitic without discrimination. He prefers the arsphenamines to all other preparations, and he uses high doses of 1.05 and 1.2 Gm. of neoarsphenamine. Congenital syphilis is usually poorly treated with a few mercurial inunctions and a few injections of mercury. He advises the use of the arsphenamines in all cases of congenital syphilis.

SYPHILIS OF THE LUNGS. JOSE MAY, Rev. argent. dermatosifil. **16**:124 (Nov.) 1932.

Syphilis may affect the lungs in the acquired as well as in the congenital forms of the disease. In the presence of chronic pulmonary disease without Koch bacilli, a tentative diagnosis of syphilis is justified, and all investigations should be carried out to prove this contention. Roentgen examinations may show the presence of gumma, interstitial sclerosis, interstitial sclerosis with pneumonic reaction, bronchopneumonic or pleuropneumonic reactions. These symptoms are as a rule unilateral, but in rare cases both lungs may be affected, and usually the condition starts at the hilus. The most typical of all these forms is that of interstitial sclerosis with pneumonic reaction. Nine cases of syphilis of the lung are reported.

SYPHILITIC NEPHROSIS. M. BENAROS, Rev. argent. dermatosifil. **16**:150 (Nov.) 1932.

The author reviews the subject of nephrosis in its relation to syphilis. Of ten personal cases of lipoidic nephrosis, five were undoubtedly of syphilitic origin.

CLINICAL FORMS AND THERAPEUSIS OF LUPUS ERYTHEMATOSUS. JUAN PESSANO, Rev. argent. dermatosifil. **16**:158 (Nov.) 1932.

This report is based on the study of 100 cases of lupus erythematosus seen in the last five years. The author reports among the clinical varieties lupus erythematosus tumidus, verrucosus, vitiligoid and bullous. In Argentina, lupus erythematosus is more frequent in men than in women, there being 62 men to 38 women. In 83 cases there was a history of tuberculosis in the family. Treatment with bismuth salts is, according to the author, the method of choice, a higher percentage of apparent cures and improvement being obtained than with gold salts.

LUPUS TUBERCULOSUS RUPIOIDES SERPIGINOSUS (OSTRACEUS). J. JADASSOHN, Rev. argent. dermatosifil. **16**:199 (Nov.) 1932.

The author reports a peculiar form of lupus tuberculosus in which the border of the lesions of serpiginous outline is covered with thick grayish crusts, heaped up in rupioid or ostraceous form. The reason for this rare and peculiar formation may be in the fact that a local immunity develops in the surrounding tissues, which seems to impede the advance of the disease. This has been proved in cases of tinea by Epstein and Grünmandel.

THE PROGNOSIS OF NEGATIVE REACTIONS OF THE SPINAL FLUID IN SYPHILIS. PAUL RAVAUT, Rev. argent. dermatosifil. **16**:206 (Nov.) 1932.

The prognosis of the spinal fluid tests becomes more valuable the longer the time elapsed between the acquisition of the disease and the time of the examination. Ravaut believes that if one spinal test is usually all that can be done to the majority of patients, this should be performed at the end of the third year. In a case in which the treatment has been adequate, a negative spinal fluid test at the end of three years is an almost absolute proof that the patient will not develop syphilis of the central nervous system.

A NEW TYPE OF TUBERCULIDS: ULCEROUS TUBERCULIDS. L. M. PAUTRIER, Rev. argent. dermatosifil. **16**:217 (Nov.) 1932.

The author reports a case of multiple small ulcers of the leg in a woman, aged 22, who had tuberculosis of the lungs. Histologic examination showed vascular lesions and a tuberculoid infiltration, resembling in some places the sections of erythema induratum, but without giant cells. Inoculation in several guinea-pigs gave negative results. Pautrier places these lesions among the tuberculids, near the lesions of erythema induratum and of atypical tuberculous ulcers.

PARDO-CASTELLO, Havana, Cuba.

STIGMAS OF CONGENITAL SYPHILIS IN THE BONES. WALTER GRAVINGHOFF, Jahrb. f. Kinderh. **133**:189 (Oct.) 1931.

The author describes roentgen changes: shadows in the spongiosa of the long bones, fine shadows parallel to the cortex, a double border about the bones of the foot, especially the calcaneum, and lines along the iliac crest. These were rarely found in children of mothers free from syphilis, but were frequent in those of syphilitic mothers, even when the mothers had received antisyphilitic treatment and when the infants showed no other manifestations of syphilis. Discussion is extremely detailed, and references to the recent literature are full.

STOMATITIS. HERMANN ZISCHINSKY, Jahrb. f. Kinderh. **137**:30 (Oct.) 1932.

Because textbooks fail to describe adequately many forms of stomatitis frequently seen, Zischinsky has attempted to classify, in a whole preliminary way, 172 cases observed in the contagious service of Pospischill at Vienna as follows: 1. Simple gingivitis, 5 cases. 2. Ulcerative stomatitis, 2 cases. 3. Aphthous stomatitis, 30 cases: marked general symptoms; typical eruption; frequently associated paronychia; contagious; marked local symptoms; liable to secondary infection, which greatly complicates correct diagnosis (3 cases); larynx may be involved. 4. Aphthoid of Pospischill, 18 cases: on buccal mucosa and tongue; rarely on hard palate, tonsils or skin of lips; begins as a vesicle, the size of a lentil, with thick walls and a red base; umbilicated; soon ruptures; consistency very firm, like cartilage; margins vesicular, irregular and spreading; few general symptoms; almost painless; heals without traces; usually occurs in very ill patients, especially in scarlet fever; rarely affects larynx. 5. Membranous plaques, 9 cases: on cheeks and lips; membrane more tenacious than the diphtheritic. 6. Ulceration of the buccal mucosa, opposite the line of closure of the teeth, 16 cases: definitely not due to trauma. 7. Forms resembling aphthous stomatitis, 26 cases: no general and very slight local symptoms. 8. Nonspecific aphthoid, 32 cases: moderate fever; especially on tongue, spreading to buccal mucosa; begins as vesicles or white papules, giving rise to shallow ill-defined confluent ulcers, not hard, very indolent, nearly painless; may appear on face. 9. Small shallow ulcers of the mucous membrane at the juncture of the upper and lower jaws, 1 case. 10. Silvery gray, glistening, concrete membrane, resembling mother of pearl, on the gums near the teeth, 6 cases: brief duration. 11. Group of red macules, surrounding swollen follicles, on the soft palate only, 4 cases: condition begins with high fever; disappears rapidly. Only in ulcerative stomatitis were any characteristic microscopic observations made.

CLAUSEN, Rochester, N. Y. [AM. J. DIS. CHILD.]

ERYTHEMA NODOSUM: AN EPIDEMIC IN A HOSPITAL. O. GOTTCHE, Monatschr. f. Kinderh. **55**:241 (Jan.) 1933.

In a ward in which there were eleven children not infected with tuberculosis, the disease was introduced by the presence of two patients with open tuberculosis, in a communicating room. Four of the children in the ward showed no clinical or roentgenologic sign of infection other than the change from a negative to a

positive Pirquet test. In one, fever developed, lasting three days. In another, fever lasted for three weeks. In four, erythema nodosum developed. Every one of these patients showed a change from a negative to a positive Pirquet reaction, as well as enlargement of the hilar nodes roentgenographically.

The writer concludes that erythema nodosum is not a specific disease but the cutaneous reaction to tuberculosis, and that it may or may not be present, just as the rash in scarlet fever may or may not be present.

GERSTLEY, Chicago. [AM. J. DIS. CHILD.]

PIGMENTED NEVI IN THE EPIDERMIS OF OVARIAN DERMOIDS. O. LUBARSCH, Virchows Arch. f. path. Anat. **285**:197, 1932.

Lubarsch refers to observations made originally twenty-six and twenty-four years ago to record the presence of pigmented nevi in the epidermis of ovarian dermoids of two women, aged 80 and 61, respectively. The older woman had numerous pigmented and vascular nevi of the skin. Further search brought to light a vascular nevus of the dermoid epidermis. The senile character of the epidermis of the dermoid in this case and the loss of pigment from the hair of the dermoid, together with the nevi, favor the Marchand-Bonnet theory that the ovarian dermoid is derived from the same fertilized ovum that gives rise to the bearer of the dermoid, and that the dermoid is the single ovum twin of the woman who has the dermoid rather than her pathenogenic offspring.

MILIARY TUBERCLES IN THE SKIN IN MILIARY TUBERCULOSIS. P. GEIPEL, Virchows Arch. f. path. Anat. **286**:591, 1932.

To three previously recorded cases of generalized miliary tuberculosis in which he found tubercles in the skin, the author adds two similar cases. The tubercles were situated either deeply or superficially in the corium; when they are superficial the epidermis may also be involved. All the cases were in nurslings. Geipel has never seen tubercles in the skin in miliary tuberculosis in adults. The subcutaneous tissue, on the other hand, practically uniformly reveals the presence of tubercles in miliary tuberculosis at all age periods.

MYCOSIS FUNGOIDES IN A DOG. D. WIRTH and R. BAUMANN, Virchows Arch. f. path. Anat. **286**:651, 1932.

Multiple nodular lesions of the skin and internal organs consisted of pleomorphic granulation tissue identical with that of human mycosis fungoides. The tissue contained acid-fast bacilli similar to those described by Busny in mycosis fungoides.

SCHULTZ. [ARCH. PATH.]

SOME NONTYPICAL CASES OF EXANTHEM DUE TO SCARLET FEVER. W. KNOEPFELMACHER, Wien. klin. Wchnschr. **43**:1447 (Nov. 20) 1930.

1. The most important cases of scarlet fever are those in which the patient shows no exanthem, i. e., cases in which the patient presents a typical angina without any cutaneous manifestations. When three members of the same family present angina and the fourth presents angina with the erythema which is characteristic of scarlet fever, the diagnosis is scarlet fever for all four patients. 2. Scarlatina miliaris is the mild form of scarlet fever. The exanthema is intensely dark, and the skin is blister-like in places. 3. Another mild form presents a mixture of scarlet fever exanthem with other forms of exanthem which sometimes simulate urticaria. 4. Toxic scarlet fever is a type in which the prognosis is unfavorable. The exanthem is intense, single spots merging into a diffuse redding. The color is purple-red, which becomes yellow when the skin is pressed. This type is accompanied by a high temperature, small frequent pulse and continued vomiting. 5. Septic scarlet fever is characterized by a tendency to swellings of the lymphatic glands and rheumatic pains; icterus is frequent. The disease of the

throat, namely, retropharyngeal abscesses and necrotic angina, constitute severe accompanying phenomena. 6. There is also the so-called light scarlet fever. The exanthem is slight; the diagnosis can be made when typical angina, swelling of the follicles and some reddening are present.

ABT, Chicago. [AM. J. DIS. CHILD.]

CALCIFIED EPITHELIOMA OF THE SKIN. I. TANASESCU and N. P. BALAN, Ztschr. f. Krebsforsch. **37**:398, 1932.

The case reported occurred in a child of 8, who had double lesions of apparently infiltrative overgrowth of the skin, with extensive calcification of the more deeply seated epithelial colonies. The infiltration was not malignant in the clinical sense. The authors explain the recurrence after operation as the result of unremoved accessory nodules. A review of similar cases is included.

EGGERS. [ARCH. PATH.]

THE WASSERMANN REACTION OF HUMAN MILK. K. OSHIDA, J. Pediat., Tokyo, no. 389, p. 1892, Oct. 20, 1932.

The author studied the Wassermann reaction of human milk at various stages, both before and after parturition, in ninety-seven patients admitted to the maternity ward of the Tokyo Red Cross Hospital. The findings are as follows: (1) The colostrum frequently gives a positive test when the blood is negative; (2) the transitional milk less frequently gives positive results than the colostrum when the Wassermann reaction of the blood is negative; (3) the mature milk gives negative tests when the blood is negative; (4) a positive Wassermann reaction of the milk in patients whose blood gives a negative reaction is always transitory, and the milk in such cases is yellowish and viscous; (5) the two breasts may give similar results or may show opposite ones; (6) the Wassermann test of human milk may change from day to day; (7) the witch's milk is always negative, even though the blood is positive; (8) there is no parallelism between the Wassermann test of the blood and that of the breast milk.

KATO, Chicago. [AM. J. DIS. CHILD.]

Society Transactions

SAN FRANCISCO DERMATOLOGICAL ASSOCIATION

JOHN M. GRAVES, M.D., *Secretary*

Dec. 2, 1932

C. E. SCHOFF, M.D., *Chairman*

A CASE FOR DIAGNOSIS. Presented by DR. H. J. TEMPLETON.

G. B., a man, aged *27*, a native of Tahiti, was presented for diagnosis before this society on Nov. *22*, 1930. He had a proliferative granuloma on the anterior third of the tongue and on the mucous membrane of the left cheek. The lesions had gradually developed during a period of three years.

Although the patient has been seen by a number of dermatologists and pathologists, no diagnosis has been made. Syphilis, a malignant growth, tuberculosis, deep mycotic granuloma, coccidioidal granuloma, frambesia, blastomycosis and rhinoscleroma have been considered, but laboratory evidence is not sufficient to support any of these diagnoses. Complement fixation tests, smears, cultures and guinea-pig inoculation have given inconclusive results. At the University of California, an organism (streptothrix) was isolated. Biopsy showed a plasmoma which was interpreted as a plasmocytoma by Dr. Ophüls and as tuberculosis by Dr. Weidman. Although the clinical picture and the plasmoma were suggestive of rhinoscleroma, no Russell bodies or Mickulicz cells were found.

Treatment with arsphenamine, antimony and potassium tartrate, iodide and gold preparations and roentgen therapy has been of no value.

DISCUSSION

DR. HOWARD MORROW: The patient was shown at the state meeting. Dr. Jacobson thought that the growth was a streptothrix infection. No bacteriologic examination had been made up to that time. Dr. Karl Meyer took cultures; a large area was anesthetized and material was aspirated from the center with a needle. A streptothrix grew from the culture. The condition is better than when the patient was last seen. The tongue is smaller. It was thought that the condition improved somewhat with large doses of potassium iodide. That was the only therapy that was of benefit. Rhinoscleroma, tuberculosis and syphilis have been ruled out. The most plausible diagnosis is that of an unusual plasmoma.

DR. L. R. TAUSSIG: There is no question but that the condition is much improved. Roentgen therapy may have had a late effect; the fact that improvement has taken place apparently with no treatment would lead me to believe that this has been the biggest factor.

DR. HARRY E. ALDERSON: How long ago did the patient receive roentgen therapy?

DR. H. J. TEMPLETON: About one and one-half years ago.

DR. HARRY E. ALDERSON: The tongue shows remarkable improvement. How much effect did the vigorous internal and local treatment have?

DR. H. J. TEMPLETON: The treatment consisted largely of intravenous injections. There was little local treatment except mouth washes.

DERMATITIS HERPETIFORMIS (?). Presented by DR. F. H. STIBBENS.

J. A., a man, aged 56, a native of Guam, married, had been well except for several serious accidents. Thirty-four years ago he noticed itching papules develop-

ing on the arms and the legs. These extended to the trunk and the face. The disease gradually became more severe on the face and scalp until the patient finally lost his hair and eyebrows, and the nodules on the face took on the appearance of nodular leprosy.

Physical examination showed no areas of anesthesia and no lymphadenitis or nodulation of the nerves. The Wassermann reaction was doubtful. The white blood cells numbered 8,150, with 52 per cent polymorphonuclears, 18 per cent small lymphocytes, 9 per cent large lymphocytes and 25 per cent eosinophils. Examination of the feces on Sept. 3, 1932, showed degenerative motile amebae; no protozoa were found.

DISCUSSION

DR. F. H. STIBBENS: The high degree of eosinophilia leads me to think that there might be intestinal parasites. The feces showed degenerative amebae but no protozoa. I believe that the condition is a form of dermatitis herpetiformis. A biopsy has not been performed.

DR. HARRY E. ALDERSON: I should like to see further blood counts made. The appearance of the skin and the general aspect of the patient suggest a condition allied to leukemia, although the blood count suggests nothing like that.

DR. J. M. GRAVES: When the patient was first seen more than a year ago, the Wassermann reaction was strongly positive. It was thought that the eruption was of the lymphoblastoma type. At that time the patient stated that it had been present for four years.

DR. E. K. STRATTON: I think that the condition may be mycosis fungoides.

DR. E. D. CHIPMAN: At first glance I thought of leprosy. After examination the condition seemed more like lymphoblastoma.

DR. L. R. TAUSSIG: In spite of the fact that the blood count was indecisive and the biopsy was nonspecific, I think that the eruption belongs to the lymphogranuloma group.

DR. C. E. SCHOFF: Has the condition been constant?

DR. F. H. STIBBENS: Practically so. It has disappeared for a month or two and then reappeared.

DR. HOWARD MORROW: I think that the condition is lymphoblastoma, though it resembles leprosy. I saw a case in a New York clinic years ago which many thought to be one of leprosy because of the falling out of the eyebrows. The condition was found to be lymphoblastoma of the leukemic type — aleukemic leukemia. That is an unusual type of leukemia. I do not think that this condition is mycosis fungoides.

DR. THOMAS CLARK: On first appearance the leonine facies and general appearance suggest leprosy, but the cardinal symptoms of leprosy are absent. The patient complains of periodic itching. Because of this and because of the nodulation in the skin, I think, as Dr. Stratton suggests, that the condition is mycosis fungoides.

PARAPSORIASIS. Presented by DR. H. J. TEMPLETON.

R. B., aged 6 years, is presented as having the guttate type of parapsoriasis, which is involuting under the influence of the ultraviolet rays.

The process began in September, 1931, and disappeared in the spring of 1932 after one month of ultraviolet therapy, only to recur.

DISCUSSION

DR. C. E. SCHOFF: How constant was the treatment?

DR. H. J. TEMPLETON: The treatment consisted of irradiation of the entire body two or three times a week with ultraviolet rays from an air-cooled quartz mercury vapor arc lamp. No violent erythema was produced.

LUPUS VULGARIS. Presented by DR. THOMAS CLARK.

V. T., a boy, aged 16, a native of Greece, lives at home with his parents and attends school. The father reported that the patient had always been well and strong with the exception of an eruption of the skin of the right buttock, which had been present since babyhood.

General examination showed nothing significant. The lesion has the shape of an irregular triangle; the two longest sides measure 8 and 10 cm. At the border, completely surrounding a central smooth scar, are closely grouped nodules covered by scales and crusts. The border is 1 cm. wide. When the crusts are removed small ulcers filled with jelly-like material are disclosed. A section was taken for biopsy, and the condition was reported by the laboratory as lupus vulgaris. The central scar is smooth and is devoid of the elements of normal skin. The diagnosis of lupus vulgaris was based on the lesions, the slow progress of the eruption, its duration and the single area involved.

DISCUSSION

DR. THOMAS CLARK: It is rather uncommon to see lupus vulgaris on the buttock.

DR. HOWARD MORROW: I think that the eruption should be classified as tuberculosis of the skin rather than as lupus vulgaris, because of the absence of nodules.

DR. THOMAS CLARK: The condition has improved so that the nodules have practically disappeared. When the patient came to me the whole area was a mass of small nodules.

DR. HARRY E. ALDERSON: Would it be possible to put the patient on a salt-free diet?

DR. HOWARD MORROW: I think that such a procedure would be a waste of time. The patients who have improved when treated with salt-free diets are those who have been taken out of homes where they were poorly fed and put in hospitals where they received good care.

DR. H. J. TEMPLETON: I was impressed by the results obtained in the Lupus Heilstaat in Vienna.

DR. HOWARD MORROW: I was also impressed until I learned that the patients were taken from the slums.

DR. C. J. LUNSFORD: The scarring caused by tuberculosis is thickened and contractile. This scarring is different.

DR. E. D. CHIPMAN: Would not the scarring be influenced by the type of treatment?

DR. THOMAS CLARK: One reason for the contractile scars in tuberculous lesions is the redeposition of connective tissue in tissues which are already partially scarred. This patient has a remarkably smooth scar, but there is a total obliteration of the usual cutaneous elements.

DR. C. J. LUNSFORD: Syphilis causes a thin tissue-paper scar and tuberculosis a thick bandlike scar.

A CASE FOR DIAGNOSIS. Presented by DR. NORMAN N. EPSTEIN.

H. S., a Jewish housewife, aged 50, first noted the appearance of small flat papules over each supraclavicular region six years ago. The condition gradually became more extensive, involving the upper part of the back. Except for the local condition, examination revealed nothing of significance. Over the supraclavicular regions and the upper part of the back is a fairly symmetrical eruption made up of groups of faintly colored pinkish-white papules of various sizes, the largest of which measure 0.5 cm. Among the firm papules are a number of atrophic spots, the sites of preexisting lesions. There is no pruritus. Laboratory examination gave negative findings. Biopsy revealed atrophy of the rete pegs and an inflammatory infiltrate in the corium made up mainly of mononuclear cells. A

few mast cells and plasma cells were present. Otherwise nothing abnormal was revealed. The infiltrate was not as sharply defined as in lichen planus.

DISCUSSION

DR. N. N. EPSTEIN: My impression is that this is a case of atrophic lichen planus. A differential diagnosis from morphea remains to be made. The pathologic observations are not conclusive from one standpoint or another.

DR. L. R. TAUSSIG: There are three conditions that may produce so-called white spot disease: morphea, lichen planus and lichen sclerosus et atrophicus. Some of those who have studied and reported such cases state that these conditions can be distinguished microscopically. The clinical course in this patient points to lichen sclerosus et atrophicus rather than to lichen planus.

DR. HARRY E. ALDERSON: I should call these lesions atrophic lichen planus. However, I should like to examine more tissue and to see the patient by daylight.

GRANULOMA OF THE GUM. Presented by DR. H. J. TEMPLETON.

Mrs. A. F., aged 28, has an eroded area on the gum above the first bicuspid of the right side of the upper jaw, which measures 1.5 by 2 cm. It has been present for months.

Repeated smears were negative for Vincent's angina. Cultures and smears were negative for yeasts or fungi. The Kline test gave negative results. A roentgenogram of the adjacent teeth revealed no pathologic condition. The blood count was normal except for 75 per cent hemoglobin. Smears were negative for tubercle bacilli. Dr. Krueger isolated a pathogenic streptococcus and prepared a vaccine as well as a filtrate for local use.

The lesion did not yield to local applications of either sodium perborate or gentian violet. An erythema dose of beta rays of radium has produced some involution.

DISCUSSION

DR. E. K. STRATTON: I think that Dr. Templeton has done everything possible in the way of investigation and treatment. From his findings it seems that the eruption is streptococcus cellulitis.

DR. C. E. SCHOFF: Chronic streptococcus cellulitis is the only solution. In this case there is no guide except bacteriology.

DR. N. N. EPSTEIN: I understand that the patient has had recurrent lesions.

DR. H. J. TEMPLETON: Yes, there were small erythematous spots and superficial erosion in several areas other than those now affected. The other eruptions healed.

GUMMAS OF THE TONGUE, WITH BEGINNING MALIGNANCY. Presented by DR. THOMAS CLARK.

A white woman, aged 67, a housewife and the mother of eight children, was referred to me because of ulceration of the tongue. The condition has been present for six months. Two of her children died soon after birth; she had several miscarriages of unknown cause. She is of slight build, weighing 111 pounds (50.3 Kg.). There has been a loss of 20 pounds (9 Kg.) in the past year. She appears anemic, and the skin is pasty. She has three areas of ulceration on the left side of the dorsum of the tongue. They measure slightly more than 1 cm. across and are rather sharply excavated. The margins are infiltrated but are not greatly elevated. A single ulcer is also present on the right side of the dorsum of the tongue. There is not much pain in the tongue, but the patient complains of pain radiating to the left ear. Muscular control is normal, and speech is not affected. A submaxillary lymph node on the left side is enlarged to the size of an almond; it is painless. The Wassermann reaction of the blood was reported as negative.

DISCUSSION

DR. HOWARD MORROW: I think that the ulceration is a carcinoma developing on a syphilitic tongue. The patient has received treatment with mercury. The improvement should be more marked if the condition is entirely syphilitic.

DR. H. J. TEMPLETON: I think that the ulcer is a carcinoma of the tongue, and that there is involvement of the glands of the left side of the neck.

DR. E. K. STRATTON: I believe that the condition is cancer.

ERYTHEMA MULTIFORME BULLOSUM. Presented by DR. C. E. SCHOFF.

A single man, aged 37, a lumber piler, who lived at McCloud, Calif., was brought to me for consultation by his physician. On Sept. 10, 1932, acute coryza, with some sores in the nose developed. There was slight epistaxis but no rise in temperature and no chill. The cold persisted, and in four or five days a rash appeared on the thighs, genitalia and extensor surfaces of both forearms. The eruption was vesicular and bullous. It extended until it became rather generalized. The patient had seventeen teeth extracted because of infection; his tonsils had also been removed. After each operation there was an exacerbation of the eruption. The urine is normal. The Wassermann reaction of the blood is negative. The blood is practically normal. The patient has had fever but one day. Poison oak extract and bismuth salicylate were given. The patient was in the hospital from October 3 to December 1; there has been no improvement.

DISCUSSION

DR. C. E. SCHOFF: I think that the condition is one of the exudative erythemas of toxic etiology; I should diagnose it more specifically as erythema multiforme bullosum. The primary infection of the upper respiratory tract and perhaps the later infection of the alimentary tract warrant consideration, as does the possibility of sinus involvement. Other major sources of retained foci seem to have been ruled out by the attending physician.

DR. E. D. CHIPMAN: I believe that the eruption is erythema multiforme bullosum.

DR. HOWARD MORROW: I think that the condition is Duhring's disease. The lesions itch and are vesicular, discrete and grouped. I cannot imagine bullous erythema lasting so long, nor pemphigus showing so many kinds of lesions. If the patient dies, the condition is pemphigus; if he gets well, it is erythema multiforme bullosum; if new lesions continue to develop, it is dermatitis herpetiformis.

DR. HARRY E. ALDERSON: Some of the lesions look as though they might be dermatitis herpetiformis; others suggest a prefungoid condition. It would be interesting to have a differential count made of the cells in fluid taken from the vesicles.

DR. C. E. SCHOFF: I did not have the opportunity to do any of that work. There are small bullae on the lateral surface of the tongue.

DR. J. M. GRAVES: I suggest that the serum be sent to Pels and Macht of Baltimore to be tested.

DR. H. J. TEMPLETON: I think that the condition is dermatitis herpetiformis. Although the Wassermann reaction is not positive, the patient might be treated with a 25 per cent ointment of potassium iodide to see whether the eruption flares up, as would happen if the case was one of Duhring's disease.

DR. THOMAS CLARK: I think that the patient is recovering from a case of erythema multiforme bullosum.

DR. L. R. TAUSSIG: I should tentatively diagnose the condition as pemphigus. The long duration is against erythema multiforme, and the lesions in the mouth tend to exclude dermatitis herpetiformis. There is no tendency toward pigmentation. The patient told me that the lesions did not itch, but that there was a slight burning at times.

DR. C. E. SCHOFF: If the condition is pemphigus, it is a type of pemphigus developing on an inflammatory base. I do not think that this is typical of pemphigus. I do not believe that the lesions are like those of dermatitis herpetiformis. In the daylight they are violently red. The patient has been traumatized by acute infections and has suffered from the extraction of his teeth and tonsils. There is a possibility that if he had influenza, it was intestinal influenza.

NEW YORK DERMATOLOGICAL SOCIETY

EDWARD R. MALONEY, M.D., *Secretary*

Regular Meeting, Dec. 20, 1932

GEORGE M. MACKEE, M.D., *President*

A CASE FOR DIAGNOSIS (FOLLICULITIS DECALVANS?). Presented by DR. J. FRANK FRASER.

Mrs. E. S., aged 54, gave a history of injury to the scalp in July, 1932. The wound healed but remained painful. There were occasional ulcers and crusts. The patient has an area of cicatrization and alopecia the size of a palm on the vertex of the scalp, with a few small crusts.

DISCUSSION

DR. FRANK C. COMBES: Three possible diagnoses are suggested for this condition: lupus erythematosus, folliculitis decalvans and, possibly, dermatitis artefacta with a secondary infection. At present the patient shows no folliculitis, and the shape of the patch does not suggest folliculitis decalvans. The erythematous border and the patulous follicles that would be expected in a case of lupus erythematosus are absent. There are a few superficial crusts but no scales. The case suggests intentional prolongation of the original injury, which has entirely healed.

DR. WALTER J. HIGHMAN: I should say that the woman had a great many ulcerations which have healed, leaving hairless scars. I do not think that the eruption is any of the conditions that have been mentioned, but is a simple case of cicatrization.

DR. EDWARD R. MALONEY: I agree with Dr. Highman. The eruption looks like infection and ulceration, and some of the lesions resemble superficial abrasions.

DR. R. H. RULISON: I agree with the last two speakers. I think that the eruption is a deep pyogenic infection, with loss of hair.

DR. EUGENE F. TRAUB: I agree with the previous speakers, but there are certain features of the case which suggest an active rather than a healing process. If new lesions of the same character as those noted are appearing, the possibility of lupus erythematosus should not be overlooked.

DR. GEORGE M. MACKEE: One must supplement what one sees now with the history of the patient in order to make even a tentative diagnosis; it is practically impossible to make a positive diagnosis on the basis of the present appearance.. There is a round area of alopecia the size of a palm. Most of the hair in this patch has been cut or shaved and is now returning. In this area are also small spots of permanent alopecia due to cicatrization. I believe that the patient has had multiple pyogenic abscesses, which were deep enough to destroy the hair follicles. My diagnosis is pyoderma.

Dr. J. Frank Fraser: There is a great deal to be said in favor of the diagnosis of pyoderma. At the first examination there were islands of long hair with groups of pustules around the follicular openings. It is a reasonable theory that the baldness was caused by the action of an agent which destroyed the follicles.

Lichen Nitidus. Presented by Dr. Edward R. Maloney.

A colored girl, aged 5, born in New York City, has an eruption on the face, back, arms and legs made up of flat, shiny, whitish papules varying in size from that of a pinpoint to that of a pinhead. The papules are discrete, but in many areas they run together to form patches of various sizes. There is no history of tuberculosis, but a tuberculin test gave slightly positive results. Roentgen examination of the lungs showed no abnormalities. Histologic examination of a papule showed the characteristic picture of lichen nitidus.

This patient was shown before the Bronx Dermatological Society in November, 1932.

DISCUSSION

Dr. Walter J. Highman: This is a classic case of lichen nitidus. The most striking feature of the case is that the patient is rather young to have lichen nitidus. The condition is more common among Negroes than among white persons.

Dr. Eugene F. Traub: I observed with interest the lesions along the single scratch mark near the patient's elbow. I do not know how commonly such marking occurs in lichen nitidus. I have noted its occurrence in other patients, and hence looked particularly for it in this patient.

Dr. H. H. Whitehouse: I agree with the diagnosis. Scratch marks are uncommon in this disease.

Dr. Walter J. Highman: It is interesting that the question of irritant lesions has been raised. The belief that only two or three forms of dermatosis can present the phenomenon of the *Isomorph Reizeffect* of the Germans leads one astray. Inflammatory and other types of lesions may be produced by irritation, so why not lichen nitidus? The disease is a sluggish process; nevertheless, that one should find the phenomenon of irritant lesions present at times, as in this patient, supports the general conception that the genesis of all lesions is due in part to local stimuli.

Dr. Edward R. Maloney: While linear lesions are unusual in lichen nitidus, they have been seen before.

Lupus Erythematosus Pemphigoides. Presented by Dr. Eugene F. Traub.

Mrs. S. L., aged 34, born in the United States, complained of an eruption which was confined largely to the face, chest and back and which had appeared about August, 1932. The disease is limited mainly to the seborrheic areas, forming a butterfly-shaped patch over the cheeks and the nose. There is diffuse scaly eruption on the forehead, which closely resembles seborrhea. On the chest and back are numerous scattered, round and oval lesions varying from 0.5 to 2 cm. in diameter and covered with crusts, suggesting dried blebs. No actual bullae have been noted. The mucous membranes are not involved. There is a history of considerable exposure to the sun before the appearance of the eruption. The patient's medical history is largely without significance, except that she had a toxic goiter for which she received treatment. Her tonsils are enlarged and seem to be infected. She has one tooth with an abscessed root.

The patient reports that a basal metabolic test that was made two months ago at another institution showed a rate of + 35. A blood count showed: hemoglobin, 88 per cent; red cells, 6,140,000, and white cells, 9,400. A differential

count showed polymorphonuclears, 68 per cent, and lymphocytes, 32 per cent. The red cells appeared normal in size and shape. The urea nitrogen was 17.6 mg.; the uric acid, 2.41 mg.; the sugar, 104.6 mg., and the chlorides, 479.3 mg. The Wassermann, Kahn and Kline tests gave negative results.

Examination of tissue showed an epidermis with well marked rete pegs and a rather heavy nonparakeratotic scale. There were no true horny plugs. There were moderate edema in the narrow papillary bodies and a few islands of cellular exudate about the blood vessels in the midcorium. The exudate did not extend to the prickle cell layer. Many of the blood vessels were engorged. A few of the lymph spaces appeared to be dilatated.

A diagnosis of lupus erythematosus was made.

DISCUSSION

DR. C. M. WILLIAMS: The condition certainly looks like lupus erythematosus, and the lesions on the body resemble lesions that have once been covered by bullae.

DR. H. H. WHITEHOUSE: I agree with the diagnosis of lupus erythematosus.

DR. WALTER J. HIGHMAN: Cases of this type are easy to classify. I do not doubt that the condition is a disseminated variety of lupus erythematosus starting with a discoid lesion that is persistent. All exudative erythemas, of which disseminated lupus is one, may become bullous. I think that this condition should be called lupus erythematosus disseminatus bullosus and not lupus erythematosus pemphigoides; the latter is a fanciful and the former is an exact term. The word pemphigoides is not descriptive. Histologically, the lesion is lupus erythematosus.

DR. HOWARD FOX: Did the patient have leukopenia?

DR. EUGENE F. TRAUB: The patient did not have leukopenia. The count for the red blood cells was 6,140,000, and for the white blood cells, 9,400. It is interesting to note that diseases falling in this category have been observed with great frequency at the Stuyvesant Square Hospital. Of late the condition of this patient has improved materially with the use of an ointment containing 3 per cent salicylic and 3 per cent sulphur, in a cold cream base. Several similar conditions recently cleared up entirely with a modified calamine liniment used locally and without resort to internal medication. In all these cases, however, the patients were carefully examined for focal infections or tuberculosis, and all conditions which might be responsible for infection were corrected.

A CASE FOR DIAGNOSIS: PRURIGO-LIKE ERUPTION. Presented by DR. HOWARD FOX.

E. G., a colored woman, aged 23, married, born in New York State, has suffered continuously from a prurigo-like eruption for three years. The eruption is symmetrically situated on both upper and lower extremities and is more profuse on the extensor surfaces. It consists of fairly profuse discrete, slightly infiltrated maculopapules, many of which are covered with crusts and a few of which are excoriated. In addition there are a few bandlike areas of lichenification, particularly about the knees. The patient complains of itching, which, she says, interferes with her sleep. She is certain that the appearance of the lesions is always preceded by itching. She is well nourished and is apparently in good health. The Wassermann reaction is negative.

DISCUSSION

DR. H. H. WHITEHOUSE: The eruption does not seem like prurigo nodularis. It is a lichenified lesion. I wonder whether it is not lichen planus with some infection from scratching.

DR. C. M. WILLIAMS: I do not think that the condition is prurigo nodularis, for the lesions are too soft and too irregular, and the itching is not sufficiently intense. The itching appeared first and the nodes later, whereas in prurigo

nodularis the reverse is true. The eruption looks worse than it would on a white person; the lesions stand out more prominently on account of the pigmentation. What the original disease was I do not know, but at present it looks like lichenification due to itching and scratching.

DR. R. H. RULISON: I have never seen anything like this condition.

DR. EDWARD R. MALONEY: I saw this patient at the clinic of the New York University Medical College a week or so ago. At that time there seemed to be well defined nodules. Because of this fact and because of the location of the eruption and the sex of the patient, I thought that the condition was prurigo nodularis, as did the other members of the staff who were present. The nodules seem to have flattened out and to have disappeared somewhat. Whether this is due to treatment I do not know. At present I do not think that the eruption is or was prurigo nodularis. It is probably a prurigo-like eruption, as Dr. Fox said.

DR. WALTER J. HIGHMAN: This patient has prurigo-like lesions with areas of lichenification and pigmentation. Itching preceded the development of the lesions. She has a polymorphus eruption with lichenification. This condition must be classified somewhere between ordinary prurigo with lichenification and the papular type of Duhring's disease. But the picture and the sequence conform with those of the confluent type of papular lichenification. Thus, the condition must be pruritus with lichenification of Brocq.

DR. C. M. WILLIAMS: The point brought out by Dr. Maloney that the lesions are softer now than they were a while ago would rule out prurigo nodularis, which remains fixed once it is established.

DR. FRANK C. COMBES: I agree with Dr. Williams that the prominence of the lesions may be due to pigmentation. In addition I should like to suggest that the tendency of the Negro race to proliferation of fibrous tissue may be partially responsible for the size of the lesions. Acanthosis may act as a stimulus to proliferation, producing the nodular lesions.

DR. JEROME KINGSBURY: I also agree with Dr. Williams' conception of the case.

DR. HOWARD FOX: Dr. Maloney and I saw the patient for the first time six days ago. I do not think that any appreciable change in the eruption has taken place since then. For the reasons mentioned by the other members I do not think that this condition is either ordinary prurigo or prurigo nodularis. I think that Dr. Highman's suggestion of pruritus followed by lichenification and secondary infection is the most feasible diagnosis.

DERMATITIS ARTEFACTA. Presented by DR. GEORGE M. MACKEE.

J. L., an Italian laborer, aged 37, first came under observation on Jan. 15, 1932. He gave a history of having injured the right thumb while cranking a cement cleaner on Sept. 2, 1931. A roentgen examination made at that time showed a compound fracture of the distal phalanx of the right thumb. In October, 1931, there was an infection of the tissue around the nail, and the nail was removed. The wound remained unhealthy and failed to heal. Because of persistent dermatitis the nail was again removed, and the exuberant granulations were curetted. The result was disappointing.

Continuous wet dressings with solution of aluminum acetate, N. F., boric acid, silver nitrate, sodium chloride, potassium permanganate and balsam of Peru were used, and ultraviolet therapy was given. In addition, the patient received several injections of neoarsphenamine, although the Wassermann reaction of the blood was negative. Three roentgen treatments were given in September, 1932. Bacteriophagia was tried.

When I first saw the patient in January, 1932, there was a markedly exudative, unhealthy looking, painful wound on the terminal inch of the thumb. During the winter, spring and summer the patient was under the care of a number of dermatologists. I saw him again about the first of December, 1932, at which time the wound looked exactly as it had previously. A roentgenogram showed that the fracture had healed and that the bone was normal. Biopsy showed nothing but granulation tissue. Numerous laboratory examinations were made, all of which gave negative findings. Bacteriologic examination revealed only a staphylococcus. An occlusion dressing was not applied. No evidence of self-mutilation had been detected. The facts that the condition was one of compensation and that the wound failed to respond to proper treatment made me suspect malingering. I have seen the patient twice weekly for three weeks in the hope of finding some evidence of malingering. Today two new dug-out excoriations appeared, which seemed to have been artificially produced. It is probable that the patient kept the wound from healing by occasionally or, perhaps, frequently excoriating the tissue with an instrument of some kind.

SUBSEQUENT NOTE.—The condition proved to be one of malingering. It healed promptly and completely when an occlusive plaster dressing was later applied.

DISCUSSION

DR. FRANK C. COMBES: I agree with the diagnosis of dermatitis artefacta. If the dressings are kept on so that the patient cannot remove them until the wound is healed or if they are changed daily, tampering by the patient would be precluded.

DR. EUGENE F. TRAUB: There seems to be a slight fluctuation at the base of the nail, suggesting a small pus pocket at this point. This might keep the process active were it not for the fact that the nail has been removed several times to correct the condition. Altogether, the facts point to a self-perpetuated process.

DR. GEORGE M. MACKEE: The nail has been removed twice without improvement.

DR. JOHN E. LANE: It is strange that, although the nail has been removed twice and the lesion has been covered with wet dressings the wound has not healed. The only other diagnosis that occurs to me is acrodermatitis continua of Hallopeau, but the lesion resembles that condition only slightly. I think that the diagnosis suggested is probably correct.

DR. FRANK C. COMBES: Apply a dressing with liquid adhesive plaster, or mark a dressing with inked lines.

DR. GEORGE M. MACKEE: That has not yet been done. I should like to hear opinions in regard to the safety of a dressing left for a week or two on an exudative wound of this type. In order to be really occlusive the dressing would have to be composed of plaster of paris.

DR. WALTER J. HIGHMAN: One of the striking objective features of the case is that the dimensions of the infected thumb are the same as those of the sound thumb. If the lesion at the top of the finger was not of artificial origin the thumb as a whole would be swollen. This seems to indicate that the patient perpetuates the irritation in some way.

DR. J. FRANK FRASER: The balance of the evidence supports Dr. MacKee's view that the case is one of dermatitis artefacta.

DR. R. H. RULISON: I think that the ulceration is being perpetuated by the patient, but an adhesive dressing, unless changed frequently, would be harmful. I think that there is pus under the nail.

DR. C. M. WILLIAMS: I think that Dr. Lane's suggestion of continuous acrodermatitis can be ruled out. The border of the lesion is not sharp and has not

advanced; there are no pustules at the border, and there is no undermining. The duration of the lesion is not important, for acrodermatitis continua of Hallopeau may persist without apparent change for months.

Dr. Howard Fox: I recently had this patient under observation for about six weeks. The diagnosis was puzzling, and treatment was entirely without benefit. My final conclusion agreed with that of Dr. MacKee. Cultures showed no fungus, the Wassermann reaction was negative, and no benefit resulted from several injections of neoarsphenamine. Hallopeau's disease did not seem probable, as the lesion had been confined so long to one finger. The patient's appearance and manner suggested malingering.

Dr. H. H. Whitehouse: I agree with Dr. MacKee's diagnosis. The suggestion made by Dr. Combes and by Dr. Rulison to apply an occlusive dressing is pertinent.

Dr. George M. MacKee: Undoubtedly a properly applied and properly cared for occlusive dressing would help to clear up the diagnosis. Such a dressing would have to be tended carefully; otherwise, the condition would probably get worse owing to lack of proper hygiene and drainage. On the other hand, I do not think that occlusive dressings are always necessary. If a patient is kept under close observation one can usually detect sooner or later definite evidence of malingering. Painful wounds do not always keep a patient from self-mutilation. You may remember the case of a patient presented last month; he underwent twenty-two operations, several being of the major plastic type. The entire area of his back and neck were so painful that even a slight breeze would make him wince; yet he mutilated this area daily. I am convinced that this case is one of malingering, although I have not yet proved it.

Lichen Planus of the Buccal Mucosa. Presented by Dr. Paul E. Bechet.

A white man, aged 38, stated that six months previous to examination his mouth and tongue became covered with whitish papules the size of a pinhead. Some time later he noticed a few bluish-red papules on the forearms and the glans penis. On inspection the mouth and tongue were seen to be literally covered with innumerable small whitish papules with normal tissue between them; there were no plaques. A few typical, elevated, bluish-red, polygonal papules were noticed on the wrists and the glans penis. The patient received routine injections of mercuric salicylarsenate, which resulted in almost complete disappearance of the lesions in the mouth. The patient is presented because in previous discussons it has frequently been stated that lichen planus in the mouth is intractable and that treatment is nearly always without benefit; yet in this patient the eruption has practically disappeared with ordinary routine treatment.

DISCUSSION

Dr. Walter J. Highman: I recently had a patient with acute generalized lichen planus that involved the mouth. I gave him yellow mercurous iodide by mouth, which I find more effective than arsenic. He is rapidly getting better; the first lesions to disappear were those in the mouth. I think that if a patient with lichen planus is going to get well he does so wheher one uses arsenic or mercury. Dr. Bechet's case proves that mercuric salicylarsenate will not retard progress in a patient with buccal lichen planus who is destined to get well.

Dr. Eugene F. Traub: It is difficult to discuss lichen planus without making a more or less arbitrary classification into which most cases seem to fit. In the first group of cases to which I should like to refer, the lichen planus appears as an acute generalized eruption over the greater part of the body and includes

the mucous membranes as well. Cases of this type usually respond readily to treatment, and the lesions of the mucous membranes generally disappear at the same time that the lesions of the skin vanish, without any local treatment. The second class of cases comprises the more fixed type of lichen planus, in which only a few lesions or plaques are to be found on the surface of the skin and on the mucous membranes. The lesions of the skin and those of the mouth are generally more rebellious to treatment in this group than in the first group. It is this type of the disease that accounts for the failures in treating lesions of the mouth.

DR. HOWARD FOX: I might mention a third group of cases, namely, lichen planus confined to the mouth. This condition is notoriously refractory to treatment. In one of my cases the eruption persisted for more than eight years.

DR. PAUL E. BECHET: I presented the patient as having lichen planus beginning in the mouth, with only a few lesions on the forearms and the glans penis and an enormous number on the buccal mucosa. The lesions in the mouth are practically well after routine treatment with mercuric salicylarsenate. The frequency with which the statement is made that lichen planus of the mouth is intractable to treatment warranted the presentation of a patient in whom the lesions disappeared promptly with routine treatment.

A CASE FOR DIAGNOSIS (CARCINOMA?). Presented by DR. PAUL E. BECHET.

An Italian, aged 51, gave a history of syphilis dating back ten years; he had received considerable treatment. Two and a half years ago a small nodule appeared in the center of an old scar on the middle third of the right leg. This soon increased in size. New nodules appeared in adjacent regions, which rapidly increased in size and number. When first seen, a few weeks ago, the patient had a cauliflower-like mass about 16 mm. in diameter and 5 or 6 mm. thick, which occupied the center of a large scar that seemed to be syphilitic. The mass was made up of aggregated nodules and was extremely hard. The lymph nodes were not enlarged. The Wassermann and Kahn tests gave negative results, but the Kline reaction was 2+. Examination of the blood showed: hemoglobin, 52 per cent; red cells, 2,900,000, and white cells, 10,600. A differential count showed polymorphonuclears, 69 per cent; lymphocytes, 30 per cent, and eosinophils, 1 per cent. The clinical diagnosis is clearly carcinoma, but it is surprising to note that two biopsy specimens taken from different parts of the mass showed only granulation tissue. It is for this reason that the patient is shown.

DISCUSSION

DR. J. FRANK FRASER: I disagree with the diagnosis of carcinoma until I see the microscopic sections.

DR. C. M. WILLIAMS: I think that the growth is a carcinoma. Many carcinomas are exuberant for a long time before they infiltrate deeply.

DR. R. H. RULISON: I think that the growth is malignant.

DR. H. H. WHITEHOUSE: I should call the condition carcinoma on a syphilitic base.

DR. EUGENE F. TRAUB: Whereas the most likely diagnosis is unquestionably carcinoma, nevertheless, because of the comparatively soft character of the lesion and the profuse discharge, lymphangiectasis with tumor formation is suggested.

DR. JEROME KINGSBURY: I think that the lesion is carcinomatous though not of great malignancy. The laboratory should not be censured for making the report it did. If a specimen of deep tissue had been examined, I think that the report would have been different.

DR. WALTER J. HIGHMAN: I also think that the laboratory should not be censured for its report. The growth should be removed radically. After that antisyphilitic treatment may be given, while a histologic examination should be made of sections taken from various parts of the growth. If this is not a carcinoma, I have never seen one.

DR. GEORGE M. MACKEE: I agree with the diagnosis of carcinoma. An epithelioma developing in scar tissue is apt to be of low malignancy, but it will sooner or later penetrate normal tissue, after which invasion will be rapid, and metastatis will occur. Whatever treatment is carried out should be so managed that the malignant cells do not invade the normal tissue.

DR. HOWARD FOX: If this is an epithelioma, as I think it is, it is unquestionably one of the squamous cell type. Epitheliomas of the extremities are almost invariably of that type.

DR. PAUL E. BECHET: The only reason that I did not make a positive diagnosis was on account of the histologic report. Despite the fact that several sections of tissue from different parts of the growth gave negative findings, I consider the clinical diagnosis of carcinoma the most probable one. It may be that the biopsy specimens were not taken from sufficiently deep tissue. I shall have the whole mass excised.

REPORT ON A CASE PREVIOUSLY SHOWN AT THE OCTOBER, 1932, MEETING. Presented by DR. PAUL E. BECHET.

Two months ago I exhibited before this society a woman with large nodular, metastatic lesions on the leg. A clinical diagnosis of sarcoma was made, which was accepted by all the members present. I brought a section of tissue with me, as the pathologic report was negative for sarcoma. Dr. Fraser examined the specimen at the time and agreed that it was not typical of sarcoma. Despite the disagreement of the histologic diagnoses, the clinical diagnosis was unanimously accepted. The woman had injured a nevoid growth on the leg, which bled freely at the time and since then had increased greatly in size, many new nodules appearing in adjacent regions. Since the presentation the mass has been ablated, and a diagnosis of melanosarcoma has been made. I submitted a number of sections to Dr. Fraser and would be grateful to hear his report.

DISCUSSION

DR. J. FRANK FRASER: When Dr. Bechet presented the case at the October meeting of the society, the majority of the members present committed themselves to the diagnosis of sarcoma. Dr. Traub and I disagreed with that conception. My diagnosis was angio-endothelioma. Further microscopic study of sections from the original tumor and satellites confirms my original belief that the condition is neither a sarcoma nor a melanoma. My final diagnosis is lymphangioma. I do not agree with the view that the condition is highly malignant.

DR. WALTER J. HIGHMAN: The condition is certainly not a myxoma, and since I see no evidence of pigmented cells, it is not a melanoma. In order to prove this further, the Doper method should be applied. There is reason to consider a nevus, as nevus cells spring from the endothelium. Lymphangioma or endothelioma seem the best description of the condition; I think that if this growth is malignant it is so only in a slight degree.

DR. PAUL E. BECHET: The case is an extremely interesting one and shows the value of a careful and prolonged histologic study of tumor tissue. If ever there was a typical clinical syndrome of sarcoma, this patient presented it; yet the most careful expert histologic examinations did not corroborate the diagnosis. Clinically, there was no suggestion of a melanoma.

CHICAGO DERMATOLOGICAL SOCIETY

E. A. OLIVER, M.D., *Secretary*

Regular Meeting, Dec. 21, 1932

MICHAEL H. EBERT, M.D., *President, in the Chair*

MACULAR ATROPHY. Presented by DR. J. F. WAUGH and DR. RUBEN NOMLAND.

A woman, aged 22, has an eruption of the skin which appeared first on her face, then on her shoulders and neck, four years previous to examination. The lesions began as small red spots and gradually enlarged to their present size, accompanied at times by slight redness. There have been no subjective or general symptoms. The patient stated that several of the round areas on the arms had fused. The lesions appeared before her first pregnancy and have enlarged slowly but consistently.

Examination showed bright red lesions on the right malar prominence, both angles of the jaw and the neck. These varied from 1 to 4 cm. in diameter, and from bright red to a color lighter than the normal color of the skin. Fine cigaret paper wrinkling and gross atrophy were present in all the lesions. On the backs of the upper parts of both arms were areas the size of a palm in which many lesions were confluent but which still showed individual macular atrophy at the border. Some of these showed herniation.

A slightly pinkish lesion about 2 mm. in diameter was removed for study. It showed absence of elastic tissue in the papillary and subpapillary layers, thinning of the prickle cell layer, disappearance of most of the rete pegs and, in most places, a slight perivascular infiltrate of round cells. However, in a few sections there were large collections of round cells in the midcutis, chiefly about the sweat glands but also invading the fat layer of the dermis.

The Wassermann reaction was negative. There was a positive reaction to tuberculin in the dilution of 1 : 1,000.

DISCUSSION

DR. DAVID LIEBERTHAL: Some of the lesions—for instance, that on the right cheek—still show symptoms of activity, not only by redness but also by infiltration, which may suggest an etiologic factor. The histologic observations in the various forms of macular atrophy resemble each other closely. Although the history and the serologic examinations disclose no preceding syphilitic infection, such a possibility should be considered.

DR. MICHAEL H. EBERT: I think that this case fits in the group that Jadassohn demonstrated—anetodermia erythematosa maculosa. He described an initial stage of erythematous macular papules, which is transitory. The centers of the papules become atrophic, and the skin feels lax. Finally only atrophic macules remain. The histology, as described by Jadassohn, is similar to that in the case presented, namely, atrophy of the epidermis, absence of elastic tissue in the corium and a slight infiltrate of round cells about the vessels.

DR. RUBEN NOMLAND: I do not believe that this case is like the macular atrophy associated with lupus erythematosus. I presented such a woman before the society (ARCH. DERMAT. & SYPH **26**:1119 [Dec.] 1932) who had macular atrophy and lupus erythematosus. She had typical lupus erythematosus on her face and scalp and macular lesions on her shoulders and clavicles, where no previous erythematous eruption had been. The case presented shows no clinical evidence of lupus erythematosus. Neither is it the type of macular atrophy associated with syphilis, of which I have seen one case, in a Negress, which I did not study microscopically. However, the Wassermann reaction is negative in this patient, and she has had three normal pregnancies with healthy children. I shall repeat the Wassermann test, but I do not feel justified in giving antisyphilitic treatment. I am inclined to place this case as the anetodermia erythematosa (Jadassohn) type of macular atrophy.

A Case for Diagnosis (Ecthyma Due to Streptococcus Haemolyticus?). Presented by Dr. S. W. Becker and Dr. M. E. Obermayer.

A woman, aged 59, has had ulcers on the legs for one year. These first appeared on the left leg and later involved the right. She gave indefinite information relative to the mode of onset. Some smaller lesions have appeared intermittently and have cleared up with local treatment. She denied having taken any medicine which might have contained bromides.

On the calf of the left leg is a large irregular ulcer with a vegetative base about 10 by 20 cm. in diameter, with a serosanguineous discharge and serous crusting. On the lateral surface of the right leg is an ulcer 5 by 10 cm. in diameter which appears to have healed in its anterior portion and to have extended posteriorly. Two smaller ulcers and scars of previous lesions are seen on the left leg.

The Kolmer and Kahn reactions of the blood serum were normal. The tuberculin test gave negative results. Repeated examination of the urine did not show bromides. A histologic section showed epidermal edema and marked dermal edema, with vascular dilatation. The dermis was involved in a marked infiltrate composed mainly of polymorphonuclear leukocytes, with a few round cells and plasma cells. A gram stain showed occasional diplococci. No tubercle bacilli were found. A culture of the seropus showed hemolytic streptococci, some staphylococci and gram-negative bacilli.

A Case for Diagnosis (Ecthyma Due to Streptococcus Haemolyticus?). Presented by Dr. S. W. Becker and Dr. M. E. Obermayer.

Following mosquito bites ulcers of the leg developed in a man, aged 37, three years before admission to the hospital. They were treated by ultraviolet rays and healed in three months, leaving depressed scars surrounded by a zone of hyperpigmentation. Six weeks before admission he noted a purulent discharge from a lesion on the calf of the right leg. This lesion has increased in size up to the present time. It consists of an irregular shallow ulcer about 7 cm. in diameter, the base of which is necrotic in places, from which a serous pus exudes. In the border of the lesion is a zone of brillant erythema about 1 cm. in width.

The patient has not been taking bromides but has been taking Enos salts about once weekly for two or three years. This is an effervescent salt which apparently does not contain bromides. Examination of the urine for bromides gave negative results.

A smear from the pus showed streptococcus-like organisms, and a culture showed mainly Staphylococcus albus and a gram-positive coccus of unknown type, not hemolytic. The tuberculin test gave negative results with dilutions of 1:1,000,000,000 and 1:100,000. The Kolmer and Kahn reactions of the blood serum were negative. The urine was normal.

DISCUSSION

Dr. Max S. Wien: The ulcers of the leg in this case suggest the type of lesion that is seen following the ingestion of bromides. Although the test for bromides in the urine gave negative results, I suggest that it be repeated after an intravenous saline solution is given.

Dr. Louis A. Brunsting: The lesions in both cases present the characteristics of chronic granuloma. Bromoderma and blastomycosis have evidently been considered. The livid zone peripherally is similar to that seen in cases previously described where the streptococcus was regarded as the causative agent. In pyodermia gangraenosum the individual lesions extend peripherally by a process of liquefaction of the subcutaneous tissues, which is preceded by the appearance of a zone of brilliant erythema. Hemolytic streptococci are demonstrated only in the undermined portion. In the cases presented there are no grave constitutional disturbances, such as empyema or colitis. In the woman there are varicose veins, which undoubtedly interfere with healing. I suggest the use of supporting bandages with a pressure pad over the ulcers as an essential part of the treatment.

SARCOID. Presented by DR. RUBEN NOMLAND.

A Negress, aged 40, gave a history of two attacks of rheumatic fever in childhood and of syphilitic infection twelve years ago, for which she was placed under treatment. She now has a well compensated mitral regurgitation. The Wassermann reactions were negative while she was under observation, but she had received much sporadic antisyphilitic treatment. The eruption of the skin appeared in May, 1932, toward the end of a course of antisyphilitic treatment lasting four months. It began as numerous small lesions on the forehead and nose. Six weeks later it consisted of a hundred or more discrete papular lesions, which were numerous on the forehead; a few were present on the nose and face. They were firm, translucent, pale papules, 1 to 2 mm. in diameter. The patient was lost sight of for several months, during which time each lesion enlarged, but few, if any, new lesions appeared. At present the lesions are 4 mm. or more in diameter, and these show a tendency to fuse into a plaque on the forehead.

A papule which was removed showed in the midcutis a superficial granuloma consisting of well separated islands of epithelioid cells, occasional giant cells and some cells of fixed tissue type. An intracutaneous tuberculin test with a dilution of 1:100 gave a strongly positive reaction, which was most marked within forty-eight hours. Twenty-four hours later there were increased redness and vague sensations in the lesions of the skin. Aside from this there have never been local cutaneous symptoms.

SARCOID (?). Presented by DR. F. E. SENEAR and DR. MINNIE O. PERLSTEIN.

D. R., a white man, aged 57, a butcher, who was seen on Nov. 1, 1932, gave the following history: He was perfectly well until seven years ago, when a small raised asymptomatic patch appeared just above the left eye, which slowly increased in size. No other lesions appeared until two years ago, when similar plaques occurred on the dorsum of the right hand and on the right side of the upper lip. During the past year he has noticed multiple small lesions on the dorsa of both hands and on both knees. His general history is essentially without significance, except for a loss of 12 pounds (5.4 Kg.) within the past year, and the loss of hearing in the left ear following an accident. On the left eyebrow is a patch the size of a quarter composed of bluish-red papules, with a suggestion of a scalloped margin. The center is depressed and depigmented, but there is no scarring or atrophy. On the right side of the upper lip, at the vermilion border, is a hemangioma-like lesion the size of a hazelnut. It has been present for two years. On the dorsum of the right hand is a bluish-red plaque about 5 cm. long and 4 cm. wide, with a raised annular border and a depressed center. This has been present for two years. Small primary violaceous papules are scattered over the dorsum of the left hand and over the forearm. Similar discrete lesions the size of a coin, of six months' duration, are present on both knees.

Diascopic examination showed no apple-jelly nodules. The Wassermann and Kahn tests of the blood gave negative results. Examination of the blood showed 11,500 white blood cells, with an essentially normal differential count.

Biopsy of a section taken from the back of the hand showed a thick scale covering the epidermis, with acanthosis and slight intracellular edema. In the corium were many foci of infiltration. Some were perivascular and consisted largely of lymphocytes, while others were larger and more diffuse and contained epithelioid cells, fibroblasts and fewer lymphocytes. Biopsy of a section taken from the eyebrow showed many sebaceous glands, sweat glands and hair follicles in the corium and a slight infiltration of lymphocytes and epithelioid cells. No acid-fast bacilli were found on either slide.

SARCOID (?). Presented by DR. F. E. SENEAR and DR. M. R. CARO.

J. D., a man, aged 32, has an eruption of three years' duration which started as small red spots, first on the arms and later over the body. These have gradually increased in size and number. He has not complained of itching except for the past few days; the itching has been mild. His health has been good, except for the occasional extrusion of collected thick mucus from the nose. He lived in Louisiana for seven years; he left that state several years ago.

Examination revealed a well nourished man who showed a profuse generalized eruption of dusky-red and bluish papules and nodules the size of a pea or larger over the trunk and extremities. These were slightly elevated above the normal skin and varied in form from definitely deep and infiltrative lesions to more superficial and raised areas. A few lesions on the face were scaly and were associated with mild, painless swellings over the joints of the mandible. The patient has noticed that when the spots on his body become more vivid the swellings at the joints increase in size.

According to laboratory findings, the Wassermann and Kahn reactions were negative. Examination of the blood showed 75 per cent hemoglobin; 5,330,000 red blood cells and 6,000 white blood cells of which 53 per cent were polymorphonuclears, 5 per cent large mononuclears, 33 per cent lymphocytes and 9 per cent eosinophils. Two nasal smears revealed no Bacillus leprae.

Biopsy of tissue taken from lesions on the chest and thigh showed normal epidermis. About the vessels in the papillary layer were thin mantles of round cell infiltration. Deeper in the corium were many well defined larger masses of cellular infiltration consisting largely of epithelioid cells and lymphocytes, with an occasional giant cell. These masses extended down along the blood vessels and sweat glands. Collagen and elastic fibers were lost within the infiltration but were present elsewhere. No acid-fast bacilli were found.

DISCUSSION

DR. H. R. FOERSTER: The lesions in the eldest of these patients warrant the consideration of sarcoid, Kaposi's hemorrhagic sarcoma and, more remotely, lepra. The granuloma annulare-like eruption in the younger man is suggestive of toxic tuberculid.

DR. RUBEN NOMLAND: I think that the Negress has the type of sarcoid described by Boeck as nodular. It is interesting to note that the lesions, when first seen several months ago, were small and corresponded to the papular variety of Boeck. This evolution is not uncommon in Negroes.

A CASE FOR DIAGNOSIS (MYCOSIS FUNGOIDES?). Presented by DR. J. F. WAUGH and DR. RUBEN NOMLAND.

A Jew, aged 61, gave an accurate history of a disorder which began ten years previously as reddened scaling patches which enlarged peripherally, scaled and after a time lost their redness. From time to time new patches appeared and enlarged until almost the entire body was involved. Only a few patches were infiltrated. Symptoms were absent or were slight. The patient has mild angina pectoris.

Only a few islands of normal skin are present on the shoulders, chest, legs and arms. The face is not involved. The eruption, whether active or quiescent, appears in typical round or polycyclic figures. Several types of lesions are present. Three areas 10 cm. or more in diameter are red, are definitely indurated to the palpating finger and show scaling but no oozing. Round and polycyclic lesions, with scaling and redness, with no induration but with definite atrophy, are present in greater numbers. The eruption consists for the most part of lesions of normal cutaneous color, with an ichthyotic type of scale and definite atrophy (wrinkling). There is no redness in these lesions, but areas of pigmented macules are seen.

Two sections were removed for microscopic examination. One, taken from a red infiltrated area, showed rather marked parakeratosis and acanthosis. There was a diffuse infiltrate in the papillary and subpapillary layers, consisting of round cells which in some places had disturbed the continuity of the layer of basal cells. The elastic tissue was partly destroyed by the infiltrate. A section from an old lesion showed less inflammatory reaction and more loss of the elastica from the papillary region.

DISCUSSION

DR. DAVID LIEBERTHAL: The case impresses me as one of ichthyosis with parapsoriasis in plaques. The patient offers the information that a son of his also has a generalized scaly eruption.

DR. H. R. FOERSTER: I believe that this patient has either parapsoriasis en plaque or a prefungoid state of mycosis fungoides, even though pruritus is absent. An eruption due to a fixed toxin appears unlikely.

DR. RUBEN NOMLAND: I do not believe that this man has ichthyosis because the lesions evolved from smaller ones by peripheral extension, an almost impossible conception. Again, there are a few islands of normal skin in the round, red scaling areas; also, there are three infiltrated plaques with definite marginations. The infiltrated plaques were the chief factor in prompting a diagnosis of probable mycosis fungoides. I believe that the microscopic observations are compatible with this diagnosis.

IDIOPATHIC ATROPHY, PSEUDOSCLERODERMA, WITH SECONDARY EPITHELIOMA. Presented by DR. A. W. STILLIANS.

A Swedish housewife, aged 86, has had wrinkling of the skin about the knees and ulcers on the legs for many years and has had great difficulty in keeping her feet warm. She recently fell and injured her left knee.

The blood pressure is 230 systolic and 90 diastolic; there is a slight systolic cardiac murmur. The skin on the lower two thirds of the right leg is tight, pink and glossy, the tissue under it is very hard, and many small ulcers are present on the surface, the longest being 20 cm. in diameter. On the inner side of the right ankle is an ill-defined hard node about 20 cm. in diameter. This has been present for two years. On the right shin, and, to a lesser degree, on the left, masses of cartilaginous hardness with sharp edges can be felt among a mass of varicose veins. The skin of the lower half of the left leg is normal, except for a scaly dermatitis on the front of the ankle on the dorsum of the foot. About the knees and on both thighs the skin is much wrinkled and is very loose and thin. Over both patellas are tumor-like soft cushions. On the left knee is a swelling 8 cm. in diameter, in the center of which is an ulcer containing a black coagulum. There is a slight wrinkling of the skin on both forearms. The joints of the fingers are enlarged, and there is marked senile wrinkling of the skin of the face, with several senile keratoses.

DISCUSSION

DR. LOUIS A. BRUNSTING: The senile features are quite evident. The dorsalis pedis of both feet is obliterated, probably through arteriosclerosis, the pulsations being barely perceptible. The cartilaginous nodules over the right shin are similar to the nodes about the joints, which are occasionally a part of the picture of acrodermatitis chronica atrophicans. There is a suggestion of dermatitis artefacta in the ulcer of the left knee with its sphacelus.

DR. MAX S. WIEN: In addition to the conditions for which the patient was presented, there is an eruption about the knees and on the dorsa of the hands, consisting of sharply defined polychromatic lesions the size of a coin which resemble those resulting from the ingestion of phenolphthalein. The patient gives a history of taking a brown pill every other night for its laxative effect.

ACUMINATE CONDYLOMAS TREATED BY BIBERSTEIN VACCINE. Presented by DR. A. W. STILLIANS.

An American masseur, aged 20, had a group of venereal warts about 1 cm. in diameter and 0.3 cm. high on the inner side of the prepuce, of about nine months' duration.

He had received six injections of vaccine prepared according to Biberstein from a mash of acuminate condylomas filtered through gauze and sterilized at 60 C. for two hours with 0.5 per cent phenol. He received two intradermal injections of 0.1 cc. each on the left forearm each week. Dr. Zakon made and administered the vaccine. No other treatment except cleanliness was given.

Examination showed only a few papules, slightly elevated and about 0.2 cm. in diameter.

NEW YORK ACADEMY OF MEDICINE, SECTION OF DERMATOLOGY AND SYPHILIS

LOUIS CHARGIN, M.D., *Secretary*

Regular Meeting, Jan. 3, 1933

A. BENSON CANNON, M.D., *Chairman, Presiding*

A CASE FOR DIAGNOSIS: PITYRIASIS LICHENOIDES CHRONICA (?). Presented by DR. PAUL E. BECHET.

A girl, aged 18, stated that the eruption had begun thirteen years previous to presentation and had progressed steadily. There had been no intervals of freedom from the attacks. There were no subjective symptoms.

On inspection, the patient presented a generalized eruption over the arms and trunk, consisting of scaly, yellowish-red, aggregated lesions. On the neck were lesions forming striae.

The patient had been treated at the Universitäts Hautpoliklinik in Berlin by Dr. Freund; the diagnosis made there was pityriasis lichenoides chronica.

The Wassermann and Kahn reactions were negative. The patient's general health was excellent.

DISCUSSION

DR. PAUL E. BECHET: The lesions have been present for thirteen years with little, if any, change, and with no subjective symptoms. The patient has a most peculiar striated condition on the neck resembling parakeratosis variegata, and I agree with Dr. Pollitzer's conception of the striae; in the axillae, there is the same striated eruption. The patient has typical guttate parapsoriasis on the arms with no atrophy. I should not entertain the diagnosis of poikiloderma.

DR. SIGMUND POLLITZER: I think that this case probably belongs in the group of the parakeratoses. The absence of itching, the slight erythema, thickening and scaling and the permanence speak for that diagnosis. Regarding the lesions on the neck, telangiectasia does not belong to the picture of parapsoriasis. The superficial thickening of the skin in this tender region might easily result in the formation of ridges and folds in a region subject to constant motion, and this pinching of the capillaries could mechanically cause a dilatation of the capillaries in the ridges. There need be no new formation of capillaries.

DR. WALTER J. HIGHMAN: The rather striking objective feature of this case is the great wealth of telangiectasia in the lesions. All lesions on all parts of the body show some telangiectasia, but a striking amount is seen in the body folds, particularly the axillae. There is a faint blush in the vicinity of the dilated vessels, with the yellowish discoloration associated with blood pigmentation. There is no marked scaling. In some places papular parakeratotic lesions are present, which are not densely infiltrated. I think, without venturing a prophecy, that the condition will prove to be poikiloderma atrophicans vascularis.

LICHEN SCROFULOSORUM WITH SPINULOSUS-LIKE LESIONS. Presented by DR. J. GARDNER HOPKINS.

A white woman, aged 50, born in the United States, was operated on in April, 1932, for tuberculosis of the kidney. About two months prior to presentation an eruption appeared over the torso and the arms. It consisted of groups of minute follicular papules which showed scaly tops or small spines apparently coming from the openings of the follicular ducts. There was no alopecia. There were also other lesions which were somewhat larger, reddish-brown papules or flat macules, generally grouped. There was an intertrigo-like condition of the groin, and the axillae showed fairly definite lichen spinulosus.

DISCUSSION

DR. FRED WISE: There is no question that the clinical diagnosis of lichen scrofulosorum is justified on the basis of the follicular lesions, the grouping and the circumscription of the patches. I am not sure that the spinous lesions play a part in the picture of lichen scrofulosorum. The other peculiar feature of the eruption is the presence of psoriasis-like lesions with micaceous scaling on the ankles; these confuse the picture. That these are lesions of lichen scrofulosorum, coalescing to form squamous plaques, is questionable. We should examine more microscopic sections.

DR. J. GARDNER HOPKINS: The patient has groups of lichenoid lesions typical of lichen scrofulosorum scattered over the body. Biopsy of the specimens obtained did not show the typical tuberculous structure, but in a limited biopsy this not infrequently occurs. From the follicles protrude spines like those seen in lichen spinulosum.

DR. SAMUEL PECK: There are enough cases in the literature to show that lichen spinulosus can be caused by fungi, tuberculosis or eruptions due to drugs. Stauffer has published a case of lichen spinulosus which was definitely due to arsenic.

DR. J. GARDNER HOPKINS: I think that one can rule out lichen spinulosus in the sense of a constitutional anomaly of the skin because of the grouping of the lesions and the inflammatory reaction about them. There is apparently lichen of a hematogenous origin and probably lichen scrofulosorum with the unusual feature that follicular spines were formed.

KERATOSIS FOLLICULARIS (DARIER). Presented by DR. B. M. KESTEN.

A man, aged 25, was admitted to the skin clinic of the New York Post-Graduate Medical School and Hospital on Dec. 12, 1932, because of hatband dermatitis. Across the forehead there was an erythematous papulovesicular eruption with some excoriation. It was noted that the patient had a bilaterally symmetrical, non-inflammatory, flat, papular eruption on the dorsa and volar surfaces of the hands. The patient stated that he had had the "warts" as long as he could remember. On further examination the patient presented the following lesions, of which he was not cognizant: Over the middle third of the posterior portion of the trunk there were numerous discrete, firm, skin-colored papules, particularly about the pilosebaceous orifices. Many of the papules were covered with somewhat oily adherent keratoses which when removed left an infundibular depression. In the axillae, inguinal regions and at the scalp hair-line there were papules of various sizes. There was no familial history of the cutaneous disease.

The Wassermann test was negative.

Treatment on December 21 consisted of one-half erythema dose of filtered roentgen ray applied to the right hand and 20 per cent of salicylic acid ointment for the back.

DISCUSSION

DR. B. M. KESTEN: A diagnosis of Darier's disease was suggested because of the infundibular lesions along the spine. They are rather characteristic of the disease. The patient has typical wartlike lesions on the hands.

The biopsy report has just been handed to me and is as follows: A section from one of the follicular papules on the posterior region of the trunk showed marked hyperkeratosis in places. Marked acanthosis was also present. The epithelium showed irregular splitting with a papillary outgrowth in one large intra-epithelial cavity. Many large, swollen, dyskeratotic cells were seen. Many of the cells had lost their prickles. Outgrowths of epithelium were seen about one of the follicles. Edema and chronic inflammation of the corium were noted. A histologic diagnosis of Darier's disease was made.

DERMATITIS EXFOLIATIVA FOLLOWING INJECTIONS OF A GOLD COMPOUND. Presented by DR. DAVID S. VAN DYCK.

A woman, aged 32, born in Russia, came to the clinic on Nov. 16, 1931, with an irregular, red, scaly patch, 1 cm. in diameter, on the right side of the nose; the lesion had been present for more than two years. The tonsils were swollen and red and contained pus. The sinuses appeared to be infected.

The patient was referred to King's County Hospital for roentgen examination of the sinuses. She was given six injections of gold and sodium thiosulphate, 100 mg. each. After the fifth injection, an eruption appeared on the neck and chest. After the sixth injection, it spread over the entire body. On April 8, 1932, she returned to the Stuyvesant Square Hospital Clinic with generalized exfoliating dermatitis. The acute inflammation subsided after treatment with injections of sodium thiosulphate for several weeks. Her skin then showed a universal pigmentation. There was also a retiform condition, on which appeared purplish lichenoid papules. Much of the pigmentation had disappeared, but some still persisted on the neck, arms, chest and thighs.

On April 11, the blood chemistry showed sodium chloride, 466.8; sugar, 99; urea nitrogen, 10; uric acid, 4.2; the last meal was taken three and one-half hours earlier; calcium, 9.5; phosphorus, 2.81, and carbon dioxide, 63.1; icteric index, 4.3; the van den Bergh test showed no color. The report of cholesterol made on April 15, showed: whole blood, 137; serum, 208, and plasma, 139. On June 23, a dextrose tolerance test was performed with 211.6 cc. of a 50 per cent solution of dextrose. The patient was 60 cm. in height and weighed 133 pounds (60.3 Kg.): The findings were as follows:

Time	Sodium Chloride	Sugar	Urea Nitrogen	Uric Acid	Total Carbon
Before	293.3	108.6	13.6	2.025	109.9
½ hour	454.3	148.6	12.3	2.05	151.2
1 hour	446.0	131.6	13.7	2.38	146.0
1½ hours	475.1	117.7	12.3	2.06	130.2
2 hours	487.6	123.2	12.4	2.07	124.6
3 hours	475.1	101.8	12.6	2.06	107.3
4 hours	479.3	107.3	12.4	2.10	109.9

The sugar in the urine was 0.0143 per cent.

DISCUSSION

DR. DAVID S. VAN DYCK: This woman received six injections of gold and sodium thiosulphate, 100 mg. each. She stated that after the fifth injection an eruption appeared on her chest and arms. After the sixth injection it spread over the entire body. The treatments were given at another hospital. My associates and I had previously seen the patient when she had lupus erythematosus of the face, but had purposely avoided giving gold compounds because she had obvious foci of infection in her tonsils and sinuses. When her eruption became generalized she returned to our clinic with typical exfoliating dermatitis. She then received injections of sodium thiosulphate and calcium chloride. After several weeks the clinical picture changed to the pigmented, reticulated and variegated condition which she shows at present. There are purplish lichenoid papules on the thighs. The seemingly atrophic streaks now present on the arms at one time closely resembled lichen planus.

DR. J. GARDNER HOPKINS: This condition is very like that of a patient of Dr. Throne's whom I saw a couple of years ago. She, too, presented the peculiar areas of atrophy. The eruption followed the injection of a gold compound, and I think it was found to be due to the gold.

DR. FRED WISE: Have any biopsies been made on specimens of the present eruption? May we have a biopsy and a report on the case at the next meeting?

DR. SAMUEL PECK: When gold was first introduced as a therapeutic measure, attention was called to the fact that it sometimes sensitized the patient to light. Owing to the marked pigmentation and the resemblance to poikiloderma, I think that sensitization to light at one time may have played a rôle in the development of this condition.

A CASE FOR DIAGNOSIS (IODODERMA?). Presented by DR. LEWIS B. ROBINSON.

A colored woman, aged 28, born in the United States, had been ill for about a year prior to presentation. She had first suffered from a sinus condition which had been treated surgically. She improved, but about five months prior to presentation she noted a swelling at the angle of the right jaw, and the condition was associated with a sore throat. Shortly afterward a swelling appeared on the left side of the neck; it had become more marked for the past three or four months. A few weeks prior to presentation she noticed a sore throat on the left side and chills and fever. She had lost 25 pounds (11.3 Kg.) during the past six months.

In the beginning of December, 1932, a rash appeared on the face and body. She stated that she had a similar eruption four months prior to presentation which lasted three weeks.

She presented a papulopustular eruption besides numerous pigmented macules over the face and body. The extremities were not particularly involved. There were a few lesions in the region of the vulva and anus and two small erosions on the lower lip. There were whitish patches on each side of the tongue. On the left side of the neck there were a large (2 by 3 cm.) lymph node and a string of posterior cervical lymph nodes. On the right side there was a chain of small cervical lymph nodes. Dr. J. M. Hanford thought that the cervical lymph nodes were tuberculous.

On December 5, the Wassermann reaction was negative. On December 9, the cholesterol was 2 plus, the alcoholic antigen, 2 plus, and the Kahn reaction, 1.5. On December 16, the cholesterol was 2 plus; the alcoholic antigen, negative, and the Kahn reaction, 0.7. On December 9 and 30, dark-field examination gave negative results; on the last date, puncture of the gland also gave negative results.

The patient received four injections of bismuth and under this treatment new lesions appeared.

DISCUSSION

DR. LEWIS B. ROBINSON: A generalized pustular eruption developed within the last two months. It was first considered to be an eruption possibly due to iodide, as the patient gave a history of having taken a tonic. She had a probable tuberculous gland in the neck and was thought by the tuberculosis department to have pulmonary tuberculosis. A doubtful Wassermann reaction suggested a pustular type of secondary syphilis. The possibility of tuberculid was also suggested. The lesions have continued to appear after six injections of bismuth.

DR. FRED WISE: I think that the eruptions are due to iodide. All the features are suggestive of it being that rather than an eruption due to bromide or one due to syphilis.

DR. MARION B. SULZBERGER: This is a very confusing and interesting case. The clinical localization on the central portions of the face and nose first made me think of lupus miliaris disseminatus. If one excises a single pustule in this disease, one may often fail to find a tuberculous structure. The question as to whether the condition is a syphilitic eruption comes up. The patient was said to have had typical plaques in the mouth; this does not justify the diagnosis of lupus

miliaris or of an eruption due to iodide. She presents a phenomenon which should be evaluated with a certain degree of caution in trying to diagnose a syphilitic eruption; i. e., the lesions are extremely sensitive to pressure. If one uses a small blunt object and touches one of the lesions with slight pressure, one finds, as is often the case in secondary syphilids, that the patient winces, whereas the normal skin stands many times that pressure. This sign, which, of course, is not absolutely pathognomonic and which was first described by Helene Ollendorff (*Arch. f. Dermat. u. Syph.* **149**:310, 1925), is present to a marked degree in this case.

DR. SAMUEL PECK: For the last two years I have been calling attention to what I thought was a sign described by Jadassohn in secondary syphilis. It is characterized by unusual tenderness on pressure of the macules or papules with a blunt point.

DR. HERMANN FEIT: This patient also had lesions on the vulva. Syphilis seems to take on a peculiar aspect in patients with tuberculosis; the maculopapular type seems to be more often found in such patients.

DR. WALTER J. HIGHMAN: What other investigations were made in this case besides the therapeutic and Wassermann tests? Has a tuberculin test been made?

DR. LEWIS B. ROBINSON: I do not know whether a tuberculin test has been performed.

DR. SIGMUND POLLITZER: The patient had taken some tonic before the rash appeared, and she was taking the tonic during the summer when it appeared. For a short while after she ceased to take the medicine, the rash disappeared; but a month or six weeks later, when she was still refraining from the medicine, the rash recurred. That was several weeks ago. This history, of course, fits in with the picture of a rash due to iodide, except that recurrence without any renewal of medication is opposed to the theory of an eruption due to iodide.

DR. HERMANN FEIT: Besides the lesions in the mouth and on the vulva, the patient has generalized adenopathy, which does not fit in so well with the picture of an eruption due to a drug.

DR. PAUL GROSS: This patient is being studied by Dr. Hanford for tuberculosis. She has had three Wassermann tests performed. The first was found to be negative; the second, slightly positive, and the third, negative with an alcoholic antigen and two plus with a cholesterol antigen, a result frequently obtained in normal patients. As far as the lesions in the mouth are concerned, they might have been superficial bullae which broke down. The eruption in the groin and around the vulva is of a pustular type, and the lesions are somewhat larger than those on the body.

DR. WALTER J. HIGHMAN: It is conceivable that a patient with tuberculosis might also have syphilis.

DR. MARION B. SULZBERGER: Regarding the question of iodide, do you think we can ever rule out an unconscious ingestion of iodide on the part of a patient, i. e., iodized salt, such as is used in many kitchens? I have seen eruptions due to iodide in patients who have taken iodized salt only unconsciously in this way. Patients who are so sensitive to iodine must be kept at home for every meal to be sure that they do not get iodine in the salt. This iodized variety of salt is being widely advertised and widely used, so that many housewives have it on their tables and in their kitchens without even knowing of its presence.

DR. PAUL E. BECHET: During the past six months I have had under observation three patients suffering from severe iododerma; one case nearly ended fatally. All three patients had been using iodized salt on their food for a long time, and iodides were recovered from the urine.

DR. PAUL GROSS: The question of iodized salt was investigated; the patient has not been using any.

DR. LEWIS B. ROBINSON: I think that this patient probably has an eruption due to a drug. In April, 1932, the Wassermann reaction was negative; the second one was positive, and the third one was one plus, with a two plus Kahn reaction. I do not think that the patient has syphilis.

LUPUS VULGARIS AND CARCINOMA. Presented by DR. HERMAN GOODMAN.

A man, aged 50, had a palm-sized and a larger patch of cigaret-paper scarring on the upper part of the forearm and the lower part of the arm. Over the apex of the elbow there was a verrucous mass, slightly ulcerated, the size of a dollar, with foul-smelling exudate. He complained of pain at night. On Dec. 15, 1932, biopsy showed an irregular epidermis. Scattered throughout the corium were pale-staining cells, lymphocytes and giant cells of the Langhan's type. There was hyperplasia of the walls of the blood vessels. There was no sign of necrosis in any of the sections. A second biopsy, performed on December 17, showed an irregular epidermis, with marked changes in the size and the shape of the cells. There were many hyperchromatic nuclei and also mitotic figures. A diagnosis of lupus vulgaris was made on the first biopsy and one of carcinoma on the second biopsy.

DISCUSSION

DR. MARION B. SULZBERGER: I believe that the carcinoma should be treated first and the lupus vulgaris later.

DR. SIGMUND POLLITZER: This patient has cancer, and treatment must be given for it. He has apparently had lupus vulgaris a long time and will continue to have it for a long time. The carcinoma is located where there is plenty of opportunity for trauma. It is essential to get rid of the carcinoma.

DR. MARION B. SULZBERGER: There has been a great deal of talk about carcinoma in lupus vulgaris. From what I have read in the literature, the scars of lupus vulgaris are somewhat more likely to develop into carcinoma than other types of scars, with the exception of those due to burns.

DR. J. GARDNER HOPKINS: Is there any history that this patient received roentgen therapy for his lupus? A considerable proportion of so-called lupus carcinomas are really not such, but are roentgen carcinomas.

DR. SIGMUND POLLITZER: Lupus carcinomas have been known for a long time. In the earlier days we thought that lupus carcinoma developed on regions treated by some of the methods then in use; for instance, the "spick" method, in which pointed wooden spicks dipped in a caustic were plunged into the lupus nodules. It was believed that some epithelial cells were thus carried into the depths, subsequently giving rise to cancer. The causative rôle of the carcinoma in lupus plaques was known long before the roentgen rays were discovered.

DR. SAMUEL PECK: I had the privilege of following up two cases of carcinoma in lupus vulgaris. The lesions were widely excised by means of bipolar endothermy with secondary cosmetic repairs. The results were good.

DR. J. L. MORSE: This patient said that he had never received roentgen treatment.

DR. EUGENE TRAUB: The treatment for this type of lupus carcinoma is carried out with comparative ease, because there is not the usual tendency to metastasis of the nodes. There is no question in this case that the carcinoma should be treated as promptly as possible. The area is sharply localized, and the activity of the lupus vulgaris does not extend much beyond the margins of the carcinoma itself. This would make a complete local excision an easy matter for a good plastic surgeon. If actual surgical procedure could not be carried out, an excision could be performed with the cold cautery and the wound allowed to granulate in from the base. The healing in these cases is surprisingly good. I have followed up a number of cases in which a lupus carcinoma was excised from the center of a large patch of lupus vulgaris. A skin graft was put in place, and there was a

perfect "take," in spite of the fact that the graft was applied over an area where there was no normal skin, but rather lupus nodules and scar tissue about the edge. After the removal of the carcinoma, if any lupus vulgaris remains, it can subsequently be dealt with.

DR. HERMAN GOODMAN: I have never seen lupus carcinoma in an area not above the neck, although I have seen lupus vulgaris on areas other than the face. In this case the lupus vulgaris seemingly was well treated, because it shows clearly scar areas where the lupus vulgaris had previously existed. The patient was seen by many physicians and did not come to the clinic when he should have. The clinical diagnosis first made was syphilis. This did not appeal to us; lupus carcinoma seemed to be the better diagnosis. The first portion of skin removed showed lupus vulgaris; the second mass was a part of the tumor itself, and histologically the picture of carcinoma was shown. This type of carcinoma is not metastatic and in all probability will not lead to death.

SARCOMA (KAPOSI). Presented by DR. SAMUEL FELDMAN.

Since the previous presentation before the section in October, 1932, the lesion had invaded the subcutaneous surface and was hard and infiltrated. There were spontaneous hemorrhages from the region of the eyelid. During the past month the lesions in the mouth had practically disappeared following radium therapy.

DISCUSSION

DR. A. BENSON CANNON: Since the first presentation, this patient has been treated with radium, and the lesion has practically disappeared. There has been a recurrence.

DR. WALTER J. HIGHMAN: Did the histologic picture show hemorrhages?

DR. SAMUEL FELDMAN: Yes. The specimen showed extravasation of blood, enlargement and increase in the number of blood vessels and infiltration with spindle cells. The second biopsy showed more fibrosis and less spindle cells. In the new specimen, dilated spaces were seen. These spaces were lined with endothelium, and their lumens were filled with a homogeneous material but no cells. It appears that the lymph spaces, together with the blood vessels, are participating in the process of tumor formation.

DR. WALTER J. HIGHMAN: I do not question the original clinical diagnosis. I should like to point out that the term which Kaposi used was described as multiple benign hemorrhagic and pigmentary sarcoma. The various nouns and adjectives must have meant something. Was that the clinical picture in this case? If not, how, histologically, could a differentiation be made on a single mass between angiosarcoma and Kaposi's sarcoma? Why not call the condition angiosarcoma, and save the other diagnosis for the future if it proves necessary?

DR. SIGMUND POLLITZER: I agree with Dr. Highman. Kaposi's sarcoma is a clinical concept. To make a diagnosis from a single lesion, especially one limited to the mucous membranes, where manifestations of the disease rarely occur even in pronounced cases, is certainly a little risqué. I do not think that one should reject that diagnosis, but I should accept it with reserve.

DR. HERMANN FEIT: Some years ago I presented a patient from the New York Skin and Cancer Hospital with a history of the first manifestation of Kaposi's sarcoma on the roof of the mouth. The condition was diagnosed histologically at Bellevue Hospital. A few years later a typical Kaposi sarcoma developed in the usual location on the legs.

DR. SAMUEL FELDMAN: The second section contained much pigment. Some of it was hemosiderin, as shown by the potassium ferrocyanide test, but most of it was melanin. The lesion on the eyelid was present when the patient was first presented, but it escaped notice or was considered to be without significance. Since

his first presentation, the patient states that he had three or four spontaneous hemorrhages from the eyelid. I think that we are dealing with a Kaposi sarcoma. The lesions clinically and histologically look like Kaposi's sarcoma.

SERPIGINOUS SCLERODERMA. Presented by DR. PAUL E. BECHET.

A woman, aged 18, stated that she had a lesion on her right thigh for three years. It had attained its present size in a few weeks. On inspection, there was found a reddened, indurated lesion with atrophic areas with a decidedly irregular, serpiginous outline; there were areas of healthy skin between. A Wassermann test proved negative on two occasions. Biopsy showed a thin epidermis covered with a nonparakeratotic scale. There was marked edema of the upper corium; the blood vessels and lymph spaces were dilated. There were islands of round cell infiltration, but not especially about the blood vessels. The connective tissue fibers in the midcorium were swollen. The section took an intensely red stain; the upper corium, however, did not. In many sections the collagen fibers had a homogeneous appearance. Weigert's stain showed swollen elastic tissue fibers, but the fine fibers were absent.

DISCUSSION

DR. SIGMUND POLLITZER: I should like Dr. Bechet to give us a basis for his diagnosis. I am not acquainted with this form of scleroderma. I know that the linear form of scleroderma may assume a serpiginous appearance, but always in a linear form.

DR. PAUL E. BECHET: The reaction to the tuberculin test in this case is negative. The Wassermann reaction is negative. The general health is excellent. The patient received active antisyphilitic treatment for a month with no appreciable change in the lesion. The diagnosis of syphilis can therefore be eliminated. The lesion shows in its center an ivory-colored patch of sclerosis of linear distribution. The title of the case report is somewhat misleading, for while the patch is clearly serpiginous in outline, it is my opinion that this confirmation is due to the frequent biopsies and scars from former attempts to remove the lesion in other clinics, rather than to the scleroderma itself. There are many scratch marks and excoriated points in the patch, which also serve to mask the original morphea. In recapitulation, the patient has a patch of morphea which scratching, excoriation, biopsies and treatment have changed into an inflammatory serpiginous lesion, losing much of its original appearance.

DR. SIGMUND POLLITZER: I see a group of lesions of atrophic or scar tissue. I can understand that a biopsy will show scar tissue that might readily be mistaken for scleroderma. It is impossible to come to a definite conclusion in a difficult case like this after a cursory examination. Why is this not a tertiary syphilid? The clinical appearance certainly suggests a serpiginous syphilid. A negative Wassermann reaction in a case of this kind would have no significance.

DR. J. L. MORSE: When I first looked at this case, I thought that it was a serpiginous syphilid. There were atrophy and telangiectases in some small areas. The patient said that the eruption developed following a severe sunburn. I thought that it was perhaps some unusual form of lupus erythematosus.

DR. PAUL GROSS: I have seen the same alabaster-like scars in several conditions; for instance, following varioliform lesions in acute parapsoriasis and as a result of trauma or biopsy in acrodermatitis chronica atrophicans.

DR. WALTER J. HIGHMAN: Why does Dr. Bechet discount the itching unless he wishes to establish the presumption that this is a neurotic excoriation?

MULTIPLE ANGIOMA (BLUE NEVUS)? Presented by DR. EUGENE TRAUB.

L. R., aged 12, born in the United States, presented a small slate-blue mark which had been present on the dorsum of the right hand since earliest childhood. There had been practically no change in its size or appearance.

DISCUSSION

DR. J. L. MORSE: Is electrodesiccation the best type of treatment to employ in this case? It seems to me that there are methods, especially treatment with radium, which would give better cosmetic results.

DR. EUGENE TRAUB: This patient was sent to me in consultation for advice as to therapy. In view of the location and character of the capillary nevus, it seemed best that the child be left untreated or kept under close observation to note whether or not there was a further growth of the vascular elements. The most conservative line of treatment, if any, which should be attempted at this time would be to give the patient an intensive dose of ultraviolet rays. The reaction set up by this agent occasionally causes these lesions to disappear. No harm can be done by this form of therapy, and the cosmetic result is usually better than if carbon dioxide snow, fulguration or any type of irradiation is used.

DR. A. BENSON CANNON: It has been my practice to leave such extensive nevi untreated unless they are rapidly increasing in size out of proportion to the growth of the child. Experience has taught me that many such large and multiple angiomas will disappear or become less pronounced in time without treatment.

MACULAR ATROPHY (SCHWENINGER-BUZZI TYPE). Presented by DR. LOUIS CHARGIN.

A man, aged 21, single, from the skin clinic, New York Post-Graduate Medical School and Hospital, revealed nothing in his former history that seemed to throw any light on his present cutaneous condition. About six months prior to presentation, he had noticed raised spots on his skin. He had never observed any type of eruption preceding these spots. He said that he had not had an initial lesion or secondary manifestations of syphilis, although he had a positive Wassermann reaction. In fact, he said that he had not had sex contact. It was because he noticed the raised lesions that he sought a "blood test," which was found to be positive. He showed no stigmas that would permit one to consider the patient as suffering from congenital syphilis.

The eruption was chiefly located on the trunk, particularly on the abdomen and the back. There were scattered lesions on the upper part of the legs, axillary regions and shoulders. The lesions were raised and varied in size from that of a pinhead to that of penny. The skin was whiter than normal. An unusual fact was that there were no lesions that gave the impression of a hernia of the skin, which is so common in macular atrophy. The solid feel of many of the lesions was also unusual.

DISCUSSION

DR. WALTER J. HIGHMAN: Why was this case presented as one of the Schweninger-Buzzi type instead of one of plain macular atrophy?

DR. LOUIS CHARGIN: In the end-stage all macular atrophies are alike, clinically as well as pathologically, and at this time the history can help us decide the origin of the atrophy.

Macular atrophy can be divided into primary and secondary types. Primary macular atrophy includes anetodermia of Jadassohn and anetodermia of Schweninger and Buzzi. The latter does not follow any known eruption, but arises spontaneously without any preexisting lesion. Secondary macular atrophy is that type which replaces lesions of some other disease, such as syphilis and tuberculosis. Macular atrophy replacing syphilis is by no means rare. Cases are also observed in which macular atrophy exists in patients suffering from syphilis, but it does not replace any syphilitic lesion; in other words, the two diseases coexist. There are about twelve cases of this type reported in the literature, one or two by Dr. Wise. This patient has a positive Wassermann reaction and is evidently syphilitic. He acquired the infection innocently; the duration is impossible to ascertain. He presents the typical lesions of macular atrophy, confirmed his-

tologically. Since he definitely states that the present eruption did not replace a prior eruption, it is fair to conclude that syphilis and macular atrophy coexist in this case, and that the macular atrophy is therefore of the Schweninger and Buzzi variety.

DR. WALTER J. HIGHMAN: I have always thought that the Schweninger and Buzzi syndrome belonged to primary atrophy and should never have been separated from the group described by Jadassohn. I agree with Dr. Chargin. I think that we could dispense with the Schweninger and Buzzi concept, albeit this case lacks one element, i. e., the tumor-like lesions.

DR. CHARLES WOLF: The Schweninger-Buzzi type of macular atrophy is characterized by hernia-like scars. On close examination, hernia-like sacs are noticeable in some of the scars. In time the clinical manifestations typical of the Schweninger-Buzzi type of macular atrophy will become more marked.

DR. WALTER J. HIGHMAN: I took Dr. Chargin's word for it that there were no hernia-like sacs. However, the hernia-like quality is found both in Jadassohn's and in Schweninger-Buzzi's types. At the start of both processes, when the elastic tissue begins to disappear, the skin devoid of elastic tissue lets the subcutaneous tissue bulge. On palpation, one feels the hernia-like quality in the lesion which is not present in this patient. I think that this condition lacks the characteristic features of both the Jadassohn and the Schweninger-Buzzi type. I wonder why Dr. Chargin favored the latter, when conditions in this patient seem to approach the former.

DR. HERMANN FEIT: Some years ago I presented a similar case which I diagnosed as the Schweninger-Buzzi type of macular atrophy; I observed it at the New York Skin and Cancer Hospital. The lesions when first observed had the same appearance as the lesions presented here. The skin-colored lesions which felt like soft tumors were the only ones observed by me; no erythematous lesions, such as Jadassohn described, were seen at any time. A distinction between the two types seems justified.

DR. MARION B. SULZBERGER: I should like to ask Dr. Chargin whether he believes that one is justified in speaking of idiopathic macular atrophy in patients with a positive Wassermann reaction?

DR. SAMUEL PECK: Oppenheim has stated in his classic work on cutaneous atrophy that even in idiopathic atrophy there is a primary, even though slightly inflammatory, reaction. It seems to me, therefore, that if inflammation precedes the atrophy, the classification of the cutaneous disease under the idiopathic atrophies should not be ruled out.

CARCINOMA. Presented by DR. PAUL E. BECHET.

P. M., a man, aged 50, was previously presented before the New York Dermatological Society in December, 1932. The members of that society accepted the diagnosis of carcinoma despite the pathologic report of granuloma pyogenicum.

DISCUSSION

DR. WALTER J. HIGHMAN: When this patient was presented before another society two weeks ago the histologic diagnosis was granuloma pyogenicum as reported by Dr. Bechet. The discussion there concerned the diagnosis of granuloma pyogenicum, and the opinion was that the condition was not granuloma pyogenicum but a malignant process. I did not examine the patient carefully, as I thought that the condition was malignant. Tonight I am not so sure; it looks like a huge mass of granulomatous tissue. In order to be sure, I think that it is important to make further histologic examinations, particularly of specimens from the base. The histologic picture in the specimen of tissue removed was that of granulation

tissue. That is not satisfying under the circumstances. Only exhaustive microscopic study will settle the question.

Dr. Fred Wise: From the clinical appearance, I have little doubt that the mass is a fungating carcinoma. I should recommend bipolar endothermic removal of the growth.

Dr. Paul E. Bechet: The case was presented before the New York Dermatological Society on Dec. 20, 1932, with a tentative diagnosis of carcinoma, because of the negative histologic report, and not because of the clinical appearance of the lesion, which was typical. Three biopsies were made, and the pathologic diagnosis from all three was granuloma pyogenicum. I think that this is because the punch is not very large, and the fungating lesion is from 5 to 7 mm. high, so that only a superficial part was examined. If a large mass had been excised, the report would probably have been one of malignancy. All the members of the New York Dermatological Society agreed with the clinical diagnosis of carcinoma. I still think that that is the proper diagnosis despite the pathologic report. There is no involvement of the lymph nodes. This is probably because the growth extends upward instead of deep into the subcutaneous tissue. There is no history of the ingestion of medicine. The urine was examined for iodide and bromide and was found to be normal.

The patient came to the hospital a day or two before being presented before the New York Dermatological Society and will be operated on tomorrow, so that he has not met with any delay in the treatment of his condition.

Lupus Vulgaris: Results of Treatment. Presented by Dr. Paul E. Bechet.

A woman, aged 38, since early childhood had a nodular patch of lesions at the base of the little toe of the right foot. There had been no increase in size during the past twenty years. When first seen, the patch consisted of a large number of nodules, covering an area 1½ inches (3.77 cm.) in diameter on and at the base of the right little toe. The patient's general health had been excellent. The lesion showed great improvement following the use of ultraviolet rays from a water-cooled quartz lamp by the decompression method.

Psoriasis Pustulosa. Presented by Dr. Hermann Feit.

A woman, aged 22, born in the United States, had always been in good health. There was no familial history of a cutaneous disease. The mother had been subject to rheumatism. The patient gave a history of having had dull pain in both feet, especially the left, for many years.

On the palms and soles were rather sharply defined erythematous and scaly lesions. The skin came off in flakes from a slightly swollen base, which showed many intradermal vesicles and pustules. There were typical psoriatic lesions on the scalp. The nails were not characteristic of psoriasis, there being beading, fissuring and longitudinal and latitudinal furrows, but only slight pitting.

The eruption started in the palms as white blisters, and then involved the feet. Paronychia of all fingers was also present.

Leprosy. Presented by Dr. Jerome Kingsbury.

A man, aged 26, born in Italy, first came to the clinic on March 10, 1931. He said that the eruption began on both legs two years previously and spread to the arms, chest, abdomen, back and face. There were nodular lesions over the forehead, with an absence of eyebrows, a purplish, diffuse, slightly nodular eruption under the malar region and a reticulated mottling, with atrophy and nodules scattered over the body. There was a history of chancre of the penis seven years previously.

Biopsy showed an apparently normal epidermis; scattered throughout the corium were numerous large islands of cellular infiltration not surrounded by

any inflammatory zone and not extending to the basal cell layer. The connective tissue between these islands was apparently normal. In the cellular infiltration were a few swollen round cells in an edematous mesh, and it was difficult to tell whether the round clear spaces were in the cells or between the cells. At the edge of the larger nodules there were pieces of broken-down connective tissue. It was difficult to find any trace of blood vessels. The second section showed the same condition with more nodules, and the infiltration extended to and about the coil glands. Van Gieson's stain showed broken-down connective tissue fibers scattered through the infiltration; carbofuchsin stain, infiltration with leprosy bacilli, and stains of smears from lesions, many acid-fast bacilli with the morphologic appearance of leprosy bacilli.

The Wassermann and Kahn reactions were four plus.

The patient was given injections of 0.05 Gm. of arsphenamine twice a week, beginning on November 19. Within two months he showed a marked improvement, which continued steadily up to the time of presentation. The patient was presented to show the results of this treatment.

ERYTHEMA INDURATUM: RESULTS OF TREATMENT WITH OLD TUBERCULIN. Presented by DR. PAUL E. BECHET.

A man was first seen in the clinic for cutaneous diseases of the Stuyvesant Square Hospital on July 7, 1932, the chief complaint being scattered ulcers on the legs, most marked on the posterior surface, of two months' duration. The lesions were sharply circumscribed, about the size of a nickel; the surface of the skin was dark brown, and deep nodules were noted under the skin.

The blood count showed 12,000 white cells, 4,950,000 red cells and 72 per cent hemoglobin.

Biopsy of a specimen taken on July 7 showed the epidermis to be normal, except in one area in which the granular layer was swollen; there was also a tendency to an increased formation of corium. There were many dilated blood vessels surrounded by a dense infiltration with round cells and also an infiltration with giant cells. In the midlower corium the exudate was not perivascular. There was a small thrombus in one vein; many of the blood vessels had thickened walls, and there was an inflammation of the endothelial cells in some instances.

A biopsy of a specimen taken on July 9, showed an apparently normal epidermis. There was slight infiltration about the blood vessels, with dense infiltration with round cells about the hair follicles.

Treatment 'consisted of injections of tuberculin, in dilutions ranging from 1:1,000,000 to 1:100, given once a week for twenty-four weeks

RADIODERMATITIS. Presented by DR. EUGENE TRAUB.

A woman, aged 44, had received roentgen treatment on her face for hypertrichosis twelve years prior to presentation. For four years following the treatment the skin on the face had remained smooth and clear and was devoid of eruption or hair, so much so that she wrote a testimonal on the merits of the method employed. She was presented before the section largely for this reason and for therapeutic suggestions. It was only toward the end of the fourth year after the treatment that the telangiectasia was first noted; it grew progressively worse after that time. The patient present also a typical phenolphthalein eruption on the body. There was a history of medication with Ex-Lax tablets.

LEPROSY: MACULAR ANESTHETIC TYPE. Presented by DR. A. BENSON CANNON.

A woman, aged 30, born in Greece, stated that her condition had begun seven years prior to presentation with pains in the legs, cold sweats and fainting spells. Later she had noticed a faint eruption on the arms and legs and red spots on the face. About three years prior to presentation she had numerous large blisters

on the legs which had healed after a about a month, leaving scars. She also complained of numbness in the extremities.

Examination of the skin of both feet showed it to be extremely dry, and there were numerous hyperkeratotic areas on the plantar surfaces. A few symmetrical, dime-sized, depigmented, atrophic scars were visible on the inner lateral surfaces of the feet. On the dorsal surface of the right foot was a pea-sized, shallow ulceration surrounded by a reddish-blue area and swelling. On the fingers and hands were a few small pigmented scars. Below the breast and on the abdomen, buttocks and thighs were numerous large, irregularly defined, erythematous, annular lesions and numerous dime-sized and slightly larger depigmented areas. Some alopecia of the eyebrows was also present. There was a definite anesthesia in the extremities and in some of the erythematous areas on the trunk. There was no anesthesia in the depigmented vitiligo-like lesions. The ulnar nerves were somewhat thickened.

The family history was unimportant, except that the patient believed that her father had some "lumps" on his face.

PAPULONECROTIC TUBERCULIDS ASSOCIATED WITH ERYTHEMA INDURATUM AND LIVEDO RACEMOSA. Presented by DR. PAUL GROSS.

A Norwegian man, aged 28, for two years and eight years prior to presentation had swelling of the glands of the neck and of the extremities. There was no family history of tuberculosis. Over the thighs, the legs and the extensor surfaces of the forearms were many split pea-sized, atrophic scars. On the back of the right leg was a sharply demarcated ulceration about ½ by 1 inch (1.27 by 2.5 cm.) in diameter with a granular base. On the anterior surface of the legs and thighs were a number of small papules with necrotic centers. On the inner surface of the thighs and legs there were a network of purple, bandlike discolorations and also more discrete, purplish papules. There was marked adenopathy of the neck and supraclavicular region, as well as of the right axilla.

The Wassermann reaction was negative. On Nov. 25, 1932, roentgen examination showed the pulmonary fields to be clear; there was an increase in the bronchovascular markings bilaterally, with shadows of calcium density in both hili, suggesting old healed lesions. The roentgenogram of the neck showed a chain of shadows of calcium density extending along the lines of the lymphatic glands; these shadows represented calcification of the cervical and supraclavicular lymph glands. The impression was that the condition was bilateral calcified tuberculous glands. No tuberculin tests were performed

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MANHATTAN DERMATOLOGIC SOCIETY

M. B. PAROUNAGIAN, M.D., *Secretary*

Jan. 10, 1933

FRED WISE, M.D., *Chairman, Presiding*

ACANTHOSIS NIGRICANS. Presented by DR. MAX SCHEER.

A woman, aged 50, born in Ireland, consulted the medical clinic of Mount Sinai Hospital about three years prior to presentation. She was treated there for anemia. About a year later, an abdominal mass was discovered, and she was transferred to the surgical department, where an operation disclosed a huge tumor mass on the posterior wall of the stomach and enlarged glands in the gastrocolic and gastrohepatic ligaments. A subtotal gastrectomy was performed. The patient was discharged a month later and referred to the skin clinic for pruritus of the vulva, axillae and neck, from which the patient had suffered for eight months.

A physical examination on Nov. 21, 1932, showed a woman in fair general health in spite of the carcinoma. On the entire vulva, including the mucous membrane and for 1 inch (2.5 cm.) on either side, extending back to and surrounding the anus, was a band of grayish-black pigmentation. The surface of this band was thickened, rough, verrucous and plicated. On the vulva and in the groins the skin was thickened and rough, and contained numerous firm, pea-sized, roughened papules. The patient first noticed these cutaneous changes three years before presentation. Both axillae showed a similar dark, verrucous, roughened epidermis. Along both forearms were several pea-sized, roughened, flat pigmented macules and papules varying from light brown to grayish black. There were also many freckles on the forearms. Around the umbilicus was a pigmented area similar to the aforementioned. Along the operative scar in the left hypochondrium was a similar pigmentation with warty-like excrescences. There was also a Virchow node the size of a walnut in the left supraclavicular region.

Histologic examination showed typical acanthosis nigricans.

DISCUSSION

DR. J. FRANK FRASER: I agree with the diagnosis, but I should like to ask one of the members to explain the connection between the skin lesions and the internal malignancy.

DR. MAX SCHEER: It is difficult to answer Dr. Fraser's question. Briefly, the pigmentation is supposed to be due to a disturbed function of the endocrine glands (suprarenal) and of the sympathetic nervous system; yet abdominal carcinosis is common and acanthosis nigricans rare.

ROSACEA-LIKE TUBERCULID OF LEWANDOWSKY? Presented by DR. JOSEPH J. ELLER.

A Russian jewess, aged 60, came to the skin clinic of the New York Post-Graduate Medical School and Hospital complaining of recurrent attacks of redness of the face of two years' duration. The patient's history, as well as the family history revealed nothing abnormal.

Physical examination revealed a general erythematous eruption affecting the face, forehead and nose. Scattered over this region were indurated papules and pustules varying in size from a pinhead to a split pea. There was considerable telangiectasia. The physical examination was otherwise negative. The blood count was normal; the temperature, 98.2 F., and the pulse rate, 90.

Intradermal tuberculin tests were performed with the following results: with a 1 to 1,000,000 solution, 1 plus; with a 1 to 100,000, 3 plus, and with a 1 to 10,000, 3 plus. The Moro test was negative.

Microscopic examination showed the presence of granulation tissue in the upper cutis. There was no evidence of formation of tubercles.

DISCUSSION

DR. DAVID L. SATENSTEIN: The pathologic condition was not suggestive of rosacea. There was definite granulation tissue independent of follicles; there were no tubercles, and no giant or plasma cells. In view of the fact that the patient is hypersensitive to tuberculin, I should be willing to classify the case with the tuberculous processes.

DR. ISADORE ROSEN: I agree with the diagnosis as presented. In my experience these cases have been obstinate to all forms of therapy.

DR. MAX SCHEER: A peculiar feature of this eruption is that in spite of its extent there are a distinct area of freedom from lesions around the mouth and a circumoral pallor. This speaks in disfavor of rosacea and in favor of an infectious process.

DR. E. W. ABRAMOWITZ (by invitation): I am inclined to agree with the diagnosis as presented because the eruption on the face is rather atypical for ordinary rosacea. The absence of any involvement of the palpebral conjunctiva, which usually occurs sooner or later in rosacea, militates against the latter diagnosis.

DR. FRED WISE: I should hesitate to make a diagnosis of rosacea-like tuberculid of Lewandowsky unless the typical histologic findings are demonstrated. In this patient, I should be inclined toward a tentative diagnosis of ordinary rosacea. Graded tuberculin tests should be repeated, and the case should be further investigated and the patient kept under observation.

EXTENSIVE LUPUS ERYTHEMATOSUS. Presented by DR. M. B. PAROUNAGIAN.

A woman, aged 24, colored, was admitted to the skin clinic of Bellevue Hospital on Nov. 23, 1932. At that time she presented an extensive eruption, of ten months' duration on the scalp and face, behind the ears and on both extremities.

The patient was well nourished and robust in appearance. When first seen in the wards of the hospital, the distribution and general appearance suggested the diagnosis of erythema multiforme, but on closer inspection the scaly condition, the lesions behind the ears and the induration showed that the condition was lupus erythematosus. A Wassermann test on Dec. 14, 1932, was negative.

The lesions were deeply pigmented, superficial, slightly scaly and symmetrically arranged. The patient was presented because of the extensive and erythema multiforme-like distribution.

DISCUSSION

DR. LOUIS B. MOUNT: I agree with the diagnosis. The lesions on the scalp and the loss of hair make it clear.

DR. PAUL E. BECHET: I agree with Dr. Mount's interpretation of the case. The lesions on the face are typical. The diagnosis cannot be based solely on the lesions on the arm, as these are indistinguishable from erythema multiforme; however, this condition commonly occurs in the disseminate type of lupus erythematosus.

DR. E. W. ABRAMOWITZ (by invitation): I agree with the diagnosis of lupus erythematosus. The eruption is, however, of a subacute disseminate variety, in which lesions on the palms and around the nails are apt to occur.

TUBERCULOSIS VERRUCOSA CUTIS. Presented by DR. ANDREW J. GILMOUR.

A man, aged 43, single, born in Russia, had been confined in the Manhattan State Hospital because of a manic-depressive psychosis. The lesion for which he was presented began as a warty growth two years previous to presentation. At the time of presentation it was a typical warty lesion, 1½ inches (about 3.8 cm.) long and ¾ of an inch (about 2 cm.) broad; it extended transversely on the back of the left hand adjoining the metacarpal-phalangeal joints of the index and middle fingers. The lesion was raised ¾ of an inch and was slightly inflamed at the border. The patient was presented for suggestions for treatment.

DISCUSSION

DR. H. J. F. WALLHAUSER: I should suggest multiple puncture over limited areas with the cautery, repeating at intervals of about two weeks until the lesions are entirely destroyed.

DR. LOUIS B. MOUNT: The condition sometimes disappears of its own accord. I should advise roentgen rays as the method of choice.

DR. PAUL E. BECHET: I should suggest an ordinary surgical excision, followed by a skin graft.

DR. E. W. ABRAMOWITZ (by invitation): I should try roentgen therapy in this particular location, as I have seen some excellent results that have proved

permanent. I should regulate the dosage so that there would be small chance of roentgen sequelae developing.

DR. MAX SCHEER: I should suggest a trial with roentgen therapy first; if this fails, curettage and endothermy.

DR. DAVID L. SATENSTEIN: I have not seen good results with roentgenotherapy in cases of tuberculosis cutis. The inflammatory process may subside and then flare up again, at times even worse than before the radiation. I suggest surgical removal if local topical medication is not successful.

DR. MIHRAN B. PAROUNAGIAN: I should advise electrosurgery in this case.

DR. FRED WISE: My experience has been very favorable with roentgenotherapy. I should also try pyrogallol, from 5 to 10 per cent, in cases in which roentgen rays are not employed. Recently, two instances of verrucous tuberculosis were successfully treated with pyrogallol at my associate's and my clinic.

DR. ANDREW J. GILMOUR: Because of the location near the joints, I suggest roentgenotherapy. If this is not successful, I should use a curet and an acid cauterant to the base of the lesion. In spite of the laboratory findings, I should employ mixed treatment empirically.

PITYRIASIS RUBRA PILARIS AND TERTIARY SYPHILIS. Presented by DR. MAX SCHEER.

A man, aged 55, was admitted to the skin clinic of the New York Post-Graduate Medical School and Hospital on Dec. 29, 1932. He complained of a generalized eruption of one year's duration on the scalp and ears. There was also an eruption of the trunk and extremities of seven months' duration.

The eruption consisted of closely set follicular papules, on an erythematous base; it was well marked on the trunk and extremities where there were innumerable dry, firm, pinpoint-sized lichenoid papules giving a decided nutmeg grater-like feel to the skin. The surfaces of the papules were capped with firm, adherent scales. On the lower half of the forearms and the backs of the hands the lesions were confluent and gave a dry, markedly erythematous appearance to the skin. The skin of the palms and soles was hyperkeratotic.

The laboratory findings were: Wassermann test 4 plus, and Kahn test, 3 plus. The basal metabolism was 11 per cent above normal; the blood count and the urinalysis revealed nothing abnormal.

DISCUSSION

DR. DAVID L. SATENSTEIN: Before local therapy was started, the eruption had some features of psoriasis. I suggest that diagnosis, especially as the clinical picture has changed so markedly in so short a time.

MYCOSIS FUNGOIDES? Presented by DR. FRED WISE.

A Russian man, aged 59, was first seen at the New York Post-Graduate Medical School and Hospital. At that time he presented infiltrated, purplish-red, lichenified areas on the groins and thighs, which varied in size from 1 to 5 and 6 inches (2.5 to 13 or 15 cm.) in diameter, and sharply demarcated, pigmented discoid and oval areas scattered over the trunk, thighs and buttocks. The duration of the eruption was one year. Itching was said to be only moderate. Two pieces of tissue were excised for microscopic examination, but these showed only the changes observed in chronic lichenification of the skin.

DISCUSSION

DR. ISADORE ROSEN: I agree with the diagnosis of mycosis fungoides. The characteristic bluish red, the infiltration and geographic outline of the patches, the intense itching and the persistence of the lesions are strongly in favor of that diagnosis.

DR. MAX SCHEER: I should like to ask Dr. Wise whether the lesion from which the biopsy was taken had been previously treated with roentgen ray. If so, might not this account for the negative histologic observations.

DR. J. FRANK FRASER: I agree with the clinical diagnosis. I suggest another biopsy for further microscopic study.

DR. DAVID L. SATENSTEIN: Two lesions—one recent, one old—were studied. There was no evidence of mycosis fungoides. The observations were those of neurodermatitis with secondary lichenification. If this case is to be established as one of mycosis fungoides, then it must be on clinical grounds only; that is, the clinical diagnosis is not corroborated by the microscopic evidence.

In the past I have noticed these circumstances a number of times: The condition would be clinically mycosis fungoides, but at no time would the microscopic evidence confirm the diagnosis. It is possible either that some other dermatoses clinically simulate mycosis fungoides or that mycosis fungoides has a stage which at the present time is not clearly (histologically) demonstrable.

DR. LOUIS B. MOUNT: I once submitted some sections from a case of mycosis fungoides to the late Dr. Johnston, and he reported that he could find no evidences of mycosis fungoides. When I sent him some pictures of the case, he said that I should disregard the sections, as the clinical picture was typical of mycosis fungoides.

LEUKODERMA SYPHILITICUM, GENERALIZED. Presented by DR. M. B. PAROUNAGIAN.

A man, aged 22, a Porto Rican, stated that five months prior to presentation he noticed a sore at the sulcus of the penis, one month after exposure, which was treated locally. The lesion disappeared. The patient did not recall having any lesions of a secondary nature.

The patches of leukodermia were distributed on the nape of the neck, in the hairy region over the neck, anteriorly and posteriorly, and over the submaxillary region, cheeks, shoulders, arms, abdomen and back; there were a few on the thighs. On the nape of the neck and over the hairy portions and the forearms a marked loss of hair was noticed. The majority of the lesions were about the size of a dime.

The reddish remains of the genital sore were still present, and the epitrochlear glands were palpable. The Wassermann reaction was four plus.

This was the second case of its kind shown by the presenter.

DISCUSSION

DR. PAUL E. BECHET: I was under the impression that the diagnosis made by Dr. Parounagian was usually confined to the pigmentary syphiloderm occurring on the sides and back of the neck in women, first described by Hardy and subsequently by Fournier, G. H. Fox and others. Although I know that generalized vitiligo has occurred in syphilitic persons, I have always been inclined to ascribe to coincidence the advent of the two diseases together. There has not been, in my opinion, any definite proof that syphilis plays a rôle in the causation of leukoderma.

DR. MAX SCHEER: I do not agree with Dr. Bechet that this is a case of vitiligo. I agree with the presenter that the condition is leukoderma syphiliticum, a type of lesion occasionally seen in the second six months of the disease. I think that the present lesions were preceded by a macular eruption, probably so faint that it was not noticed by the patient.

DR. DAVID L. SATENSTEIN: If this diagnosis is established, this will be the first case of generalized primary syphilitic leukoderma that has come to my attention.

DR. MIHRAN B. PAROUNAGIAN: This is the second case of the extensive type of pigmentary syphilid that I have presented before this society. There was no history of any rash prior to the condition presented tonight. I am not certain

that this rash is the primary manifestation following the roseola, because of the absence of any history of previous eruption. I am inclined, however, to suspect that the condition is possibly an early manifestation of secondary syphilis.

UNUSUAL PIGMENTATION OF THE SKIN. Presented by DR. G. C. ANDREWS.

A woman, aged 44, colored, presented a bluish-black, linear pigmentation of the right arm, of two years' duration. This was located on the flexor aspect, beginning at the middle of the upper part of the arm and extending in a narrow, irregular line down to the right wrist. There was similar pigmentation on the surface of the left wrist in a small patch the size of a dime. The possible causes, such as the use of medicines, were not obtainable in the history. Biopsy showed no evidences of lichen planus. The pigment, being both extracellular and intracellular, was in the subpapillary layer, and apparently composed of melanin.

NODULAR SYPHILID WITH PERIOSTITIS OF BOTH TIBIAE. Presented by DR. M. B. PAROUNAGIAN.

A man, aged 23, gave the following history: In August, 1929, a group of lesions developed on the penis (the period of incubation was unknown). Some time later he noticed red spots on the body and a few on the face.

He had been in the United States Navy, where he had received about thirty injections of arsphenamine and sixty of bismuth and mercury. He concluded his treatment in August, 1931, and since then had had no treatment. He stated that a blood test was made at Bellevue Hospital in November, 1931; he said that this showed nothing abnormal.

The eruption for which he was presented appeared in August, 1932. At about the same time he noticed also swelling on the middle of both tibiae, which gradually became larger and more painful.

The lesions were distributed over the forehead, face, arms and forearms, chest, back, thighs, buttocks and calves. They were of varying types and sizes—papular, papulosquamous, nodular and circinate; some were grouped and dark brown. On both tibiae, over the junction of the upper and middle third regions, were swellings which were quite painful. There was no redness, though the swellings were warm to the touch. The condition was more pronounced on the right side than on the left. The Wassermann test had not yet been completed.

DISCUSSION

DR. ISADORE ROSEN: I think that this is an unusual clinical picture of syphilis with complications of the bone. I should suggest in addition to the specific therapy, general hygienic measures, with tonics, nourishing food and plenty of rest.

DERMATITIS HERPETIFORMIS? Presented by DR. MAX SCHEER.

A colored man, aged 29, married, born in the United States, entered the skin clinic of the New York Post-Graduate Medical School and Hospital in March, 1932. He gave a history of a penile lesion of three or four years' duration, for which he was being treated by a private physician, receiving eight intravenous injections for "bad blood." When first seen, in March, he presented an indurated shallow ulcer on the ventral aspect of the glans penis, at the site of the previous lesion. The inguinal glands were enlarged and matted. The Wassermann test was two plus. At the end of one course of treatment, the Wassermann test was three plus. The patient was given another course of treatment and then rest for a month. He returned on January 4, 1933, with the eruption for which he was presented.

The duration of the eruption was three weeks. It itched badly at times and was located mainly on the back. There was one crusted area in the left inguinal region.

The lesions consisted of crusted areas over the sacrum, laterally just above the buttocks, and in the middle of the back over the spine, the left scapula and the right inguinal region. In and around the crusted areas were numerous pinhead-sized papules which were scaly. The crusted areas were grouped into patches. The patch above the right buttock was slightly swollen, scaly and, in places, oozing. On the back, just below the outer end of the spine of the scapula, was a group of pinhead-sized, closely set papules. Just below the right scapula was another group of lesions, which were shiny (lichenoid). The patient stated that all crusted areas began as single lesions; he pointed out a few irregularly scattered vesicopustules over the back. Lichen scrofulosorum was also considered.

DISCUSSION

DR. LOUIS B. MOUNT: I do not believe that the condition is either of those mentioned by the presenter. I do not know what it is.

DR. E. W. ABRAMOWITZ (by invitation): An ordinary dermatitis must be considered in this patient.

DR. ISADORE ROSEN: The case suggests to me a mycotic infection. The large patches consisting of follicular papular lesions are in all probability due to the toxins liberated in the blood stream from an area of dermatophytosis.

DR. MAX SCHEER: Dr. Rosen's interpretation appeals to me as the most rational, and pending further developments, I should accept the diagnosis of tinea with trichophytid.

I think that the diagnosis of dermatitis venenata is unlikely because (1) there is no history of an irritant, and (2) the lesions are not those of eczema.

MONILIASIS. Presented by DR. DAVID L. SATENSTEIN.

A boy, aged 17, from the skin clinic of the New York Post-Graduate Medical School and Hospital stated that his cutaneous condition began in infancy. It first appeared on the face and then spread to other parts of the body. Occasionally the skin was clear, but the condition recurred in sudden outbreaks associated with constitutional symptoms. The eruption began as vesicles, pustules or bullous lesions. The eruption was general; on the scalp it was erythematous, scaly and crusted. At the time of presentation, only the lanugo hairs were present. On the face, it appeared eczematous; at the folds, nape of the neck, elbows, knees, hands and feet, similar lesions were present. The nails were not affected. In the buccal mucosa were leukoplakia-like lesions which did not respond to any form of therapy.

The laboratory findings by Dr. Hopkins at the Columbia Medical Center was Monilia albicans in all the lesions and in the stool. A Monilia albicans skin test gave a positive reaction.

The therapy for both the general condition and the skin was fruitless, except when the lesions were treated with Monilia albicans extract, hypodermatically.

DISCUSSION

DR. GEORGE C. ANDREWS: This is a typical case, especially as regards the lesions of the tongue and scalp and the condition of the finger-nails and palms. It seems to be a definite clinical entity. These cases look like seborrheic dermatitis, but are different in many ways. The lesions of the tongue, nails and scalp help to differentiate between the two conditions.

DR. ISADORE ROSEN: I am glad that I have seen this case, as the condition is rare. I was especially interested in the appearance of the tongue. On account of the severity of the symptoms and the extensive involvement of the mucous membranes and skin, I think that investigations should be made regarding deficiency in vitamins. I saw a condition similar to this which responded favorably to large quantities of orange juice.

DR. J. FRANK FRASER: I should like to ask the presenter whether or not laboratory work has been done on similar cases with the view of determining

whether the monilia fungus is the sole causative agent. I think that Dr. Rosen's suggestion is good and warrants a trial.

DR. JOSEPH J. ELLER: I am surprised that we do not see more of these cases. I wonder if we have not missed some of them by incorrect diagnosis. This disease is seen more often in the mouth than on the skin.

DR. LOUIS B. MOUNT: I was glad to see a case of Monilia albicans of the skin. The close resemblance of the lesions, the areas involved and the sharpness of outline of the lesions speak for the fungous nature of this patient's condition. Why more persons do not have this disease is no doubt the old question of the soil and the seed.

DR. LUDWIG OULMANN: Several months ago I presented a patient with lesions on the leg. I found yeast cells in smears and cultures, and I presented the patient as having probable blastomycosis. Further cultures showed Monilia albicans. This patient had suffered for years from intestinal disturbances, but revealed no lesions of the mouth. The skin lesion cleared up in a short time. It seems to me that although one is able to cure localized eruptions, it is difficult to do so when the eruption is widely spread, and that there are many cases that we do not hear of, simply because they are not diagnosed.

DR. DAVID L. SATENSTEIN: I believe that instances of this kind are often seen but are labeled seborrheic dermatitis. They are treated for such with varying temporary results, and wander from dermatologist to dermatologist or from one clinic to another. I should suggest that all recalcitrant seborrheic dermatitis be investigated for Monilia.

DR. SACHS (by invitation): The treatment suggested by Dr. Andrews was tried, but with no success. I cultured every lesion, and Dr. Hopkins found Monilia albicans in all of them. Another point was the fact that if I continued to give Monilia albicans extract, the eruption reached a certain point toward amelioration but improved no further. Dr. Hopkins saw the patient and stated that his condition was exactly like that in the case which he reported in the ARCHIVES.

As for the diet, we gave the patient all the vitamins but found no improvement. Of the many things tried Monilia extract was the only one that gave any satisfactory results.

CASE FOR DIAGNOSIS (ERYTHRODERMIA?). Presented by DR. DAVID L. SATENSTEIN.

A man, aged 27, a clerk, from the skin clinic of the New York Post-Graduate Medical School and Hospital, gave the following history: About two years prior to presentation, he noticed for the first time a large group of vesicles on his back. The cutaneous disturbance spread, and in a few weeks was general. The condition disappeared in about six weeks. After a trip south there was a new attack; this, too, disappeared in about six weeks.

In the spring of 1932 there was a third attack which did not altogether disappear but which improved somewhat during the summer after a trip to the shore. For a few weeks prior to presentation the condition had been getting worse.

During the spring, at the suggestion that the condition might be due to some form of sensitization to something in his home, the patient changed his residence and everything in it, but apparently to no avail.

In June, 1932, he was under the supervision of the diagnostic clinic of Mount Sinai Hospital. Aside from an increased basal metabolism and an eosinophilia of 14 per cent, the findings were of no significance. There was no history or clinical findings of medication with arsenic. All tests were negative. The skin was almost universally swollen, reddened and at times covered with laminated scales. The patient complained of feeling wet. Itching was not a symptom of moment. The glands became enlarged. The condition reacted best to medication with tar.

The case was presented for diagnosis. Was this exfoliating erythrodermia primary or secondary? If secondary, secondary to what? There were never any manifestations of psoriasis, lichen planus, eruption due to a drug or mycosis fungoides. If the condition is primary, is it pityriasis rubra of Hebra?

DISCUSSION

DR. LOUIS B. MOUNT: I should regard the condition as dermatitis exfoliativa. I should not call it pityriasis rubra of Hebra because with a duration of two years the patient ought to present signs of physical deterioration.

DR. JOSEPH J. ELLER: I should suggest that one of the glands be examined microscopically. The condition might be an early form of one of the disorders of the leukemic group.

DR. ISADORE ROSEN: I had occasion to see this patient about six months ago; at that time he presented an entirely different clinical appearance. The cutaneous manifestations suggested some allergic condition, the lesions of which were situated on the face, trunk and upper and lower extremities; these were erythematous, edematous, vesicular and crustaceous. The possibility of Duhring's disease was also considered. Today the patient presented an entirely different picture, and the lesions were strongly suggestive of pemphigus foliaceous. I should suggest the phytopharmacologic test on the blood.

DR. GEORGE C. ANDREWS: I had the same impression as Dr. Rosen, and I believe that the condition is pemphigus foliaceus. The scales are too large for exfoliative dermatitis. On the upper part of the right arm I saw what I considered a remnant of a bulla. In view of the question of arsenic as a cause for the condition, I think that it would be a good thing to perform a patch test for arsenic.

DR. MAX SCHEER: This type of case is difficult to classify. I think that it belongs to the group of lymphoblastomas.

CASE FOR DIAGNOSIS (FURUNCULOSIS?). Presented by DR. DAVID L. SATENSTEIN.

An infant, aged 2 months, from the skin clinic of the New York Post-Graduate Medical School and Hospital, had had his condition since 4 weeks of age. The mother stated that at first there were blisters.

There were numerous large papules and small nodules over the chest and abdomen, and some on the back, arms and head. They were firm, well defined and reddish purple, and had a necrotic-like center. The lesions were in all stages of development; superficial atrophies marked the sites of previous lesions. Nowhere were there typical furuncles.

The mother said that she had not administered drugs, and that the patient had not been breast-fed since 2 weeks of age. Delivery was normal. The parents were well; Wassermann tests of the parents were negative.

The case was presented for diagnosis, with questions as to whether the condition was furunculosis or some form of papulonecrotic tuberculid.

DISCUSSION

DR. PAUL E. BECHET: I think that this is a case of dermatitis medicamentosa. It closely resembles an eruption to an iodide or a bromide. No other diagnosis should be entertained until ingestion of a drug is definitely ruled out.

Dr. H. H. BAUCKUS (by invitation): In a baby, when there is such a generalized furunculosis of the body, I should expect to find more pustules on the scalp. I regard this condition as extremely contagious. I should treat the patient with wet dressings and ammoniated mercury. Ultraviolet rays might be helpful.

DR. GEORGE C. ANDREWS: I should like to urge the use of ultraviolet rays, generalized and administered daily; they have a sterilizing action on the skin. I should also recommend prolonged warm baths in diluted Burow's solution.

DR. ANDREW J. GILMOUR: I should be inclined to use the ammoniated mercury, 3 per cent ointment.

DR. MIHRAN B. PAROUNAGIAN: I should suggest ultraviolet rays as well as ammoniated mercury.

DR. JOSEPH J. ELLER: Those lesions do not look like typical furuncles to me. They have a peculiar color. I think that if this were a generalized furunculosis, one would find lesions on the scalp.

DR. LOUIS B. MOUNT: I agree with Dr. Eller. I believe that the child would show marked constitutional symptoms if this were a case of multiple furuncles. I like a 50 per cent solution of glycerin for use in cases of this kind. Some of the institutions wash the infants in 50 per cent solutions of glycerin in water to prevent cutaneous infection.

DR. MAX SCHEER: I think that the eruption is a bromoderma, and I should suggest examination of the urine for bromides.

DR. SACHS (by invitation): I thought of dermatitis medicamentosa, but the history does not substantiate this diagnosis. The mother has had no drugs, and the child has not nursed for the past six weeks.

REPORT ON CASES PREVIOUSLY PRESENTED

DR. MAX SCHEER: A patient presented at the November, 1932, meeting with the diagnosis of a gumma of the tongue showed a firm, raised, globular, fibroma-like lesion. Most of the members considered it an epithelioma. The lesion disappeared completely under antisyphilitic treatment (arsphenamine, bismuth and iodides).

Another case was that of a woman who was presented at the same time. She showed a vesicular and crusted eruption most pronounced on the face and the upper part of the back. She was treated with various local remedies, with little or no results. She then received four intravenous injections of a gold compound. Eighty per cent of the lesions completely healed in a few weeks. The two conditions, which were discussed during the presentation, were pemphigus and bullous lupus erythematosus. In view of the rapid therapeutic response to the injections of a gold solution, the latter diagnosis was probably correct.

DETROIT DERMATOLOGICAL SOCIETY

H. J. PARKHURST, M.D., *Reporter*

Regular Meeting, Jan. 13, 1933

EMMETT C. TROXELL, M.D., *Presiding*

PITYRIASIS ROSEA IN A NEGRO. Presented by DR. ARTHUR E. SCHILLER.

A Negro, aged 40, presented a generalized pruritic eruption which had begun six months previously with a patch on the forehead, which was rusty in color and over which a silvery scale had developed. In the order mentioned, the cheeks, arms, forearms, anterior part of the chest, abdomen, flanks and interscapular region had been involved. There were few lesions on the thighs and legs. Most of the lesions were oval macules, their long axes following the lines of skin cleavage. The healed lesions were violaceous, and others presented a furfuraceous scale.

DISCUSSION

DR. HARTHER L. KEIM: Recently my associates and I have been seeing a number of cases which we considered to be aberrant pityriasis rosea, and I should like to know whether others have had a similar experience. We have often seen typical pityriasis rosea on the trunk associated with a dyshidrotic type of eruption on the hands and feet.

DR. ARTHUR E. SCHILLER: During the past year we have seen an unusual number of cases of pityriasis rosea, many presenting lesions of unusual types. In the present case, the first patch appeared on the brow.

DR. HOWARD J. PARKHURST: I have lately seen a number of cases showing an atypical distribution of the eruption. It has often been especially marked on the upper and lower extremities, with the trunk relatively free.

DR. JOHN A. HOOKEY: Benedek considers it to be due to an allergic reaction in the presence of schizosaccharomycosis.

DR. HOWARD J. PARKHURST: It is possible that the condition may be due to contact with some organism found in clothing which has been stored in a dark, damp place. I have obtained that history often lately.

A CASE FOR DIAGNOSIS (CONDYLOMA ACUMINATUM?). Presented by DR. ROLLIN H. STEVENS.

A man, aged 49, American-born, a storekeeper, stated that he had always been well until 1917, when the right fifth toe and the left first and second toes had become gangrenous. There was no evidence of diabetes. Amputation was performed. Although his first wife had had tuberculosis, the patient showed no signs of the disease.

Dr. Stevens had first observed the patient on July 16, 1932; there was a circumscribed verrucous area in the perianal region, from which pus oozed in certain places. The diameter of the patch was about 12 cm., and it was of six weeks' duration. There was an elevated red border, which had narrowed somewhat and become more abruptly elevated at the time of the presentation. Erythematous bands extended to the anus.

Specimens for biopsy were presented. Cultural findings had not yet been reported, and no blastomyces had been found in smears. The Wassermann reactions of the blood and spinal fluid were negative, and seven injections of arsphenamine had brought about no improvement.

DISCUSSION

DR. RAY S. DIXON: The condition was apparently produced by long continued irritation.

DR. JOHN A. HOOKEY: Perhaps a diagnosis of dermatitis vegetans might be applicable to this severe inflammatory reaction.

DR. ARTHUR E. SCHILLER: This may be condyloma acuminatum spreading from an anal infection.

DR. HARTHER L. KEIM: I agree with Dr. Schiller. The histologic appearance is not that of blastomycosis, and the possibility of syphilis has been excluded by a therapeutic test. It is apparently not tuberculous, but probably condyloma acuminatum.

DR. ROLLIN H. STEVENS: Our first impression was of blastomycosis.

DR. HARTHER L. KEIM: If this condition should prove to be condyloma acuminatum, I should suggest repeated applications of pure trichloracetic acid, which seems to inhibit the growth of the organism.

DR. WILLIAM G. SAUNDERS: I agree with Dr. Keim regarding the value of trichloracetic acid.

A CASE FOR DIAGNOSIS. Presented by DR. EMMETT C. TROXELL.

A man, aged 46, a pedler, born in Greece, complained of a sharply circumscribed nodule, of a month's duration, on the extensor surface of the left elbow. It was as large as a hazelnut, definitely localized and not attached to the subcutaneous tissues. Also, especially on the forearms, as well as on the arms, trunk and penis, there were an increasing number of flat, well defined, slightly elevated plaques, ranging in diameter from the size of a split pea to 8 or 10 cm. They

were bluish red and mostly round or oval. The patient could not recall that any had been present more than a year. There were no subjective symptoms. The Wassermann and Kahn reactions were negative.

DISCUSSION

DR. ARTHUR E. SCHILLER: At first we thought of an eruption due to phenolphthalein, but there was too much infiltration. We then thought of the possibility of erythema perstans, or of sarcoma.

DR. HOWARD J. PARKHURST: I feel that the condition is one of Kaposi's sarcoma of atypical localization. Biopsy would be required to verify this impression.

DR. ROBERT C. JAMIESON: The configuration, infiltration, size, shape and color of the nodules are very suggestive of sarcoid.

DR. ARTHUR R. WOODBURNE, Grand Rapids: It might be sarcoid, but that would have to be proved microscopically. I should reconsider the possibility of an eruption due to phenolphthalein.

DR. ROLLIN H. STEVENS: The nodule on the elbow could be diagnosed neither as sarcoid nor as an eruption due to phenolphthalein. The color suggests sarcoid, but I favor a diagnosis of Kaposi's sarcoma.

DR. CYRIL K. VALADE: I agree with a diagnosis of Kaposi's sarcoma.

DR. HARTHER L. KEIM: I incline toward a diagnosis of sarcoid, but not for the nodule on the elbow, which seems to be sarcoma.

DR. HOWARD J. PARKHURST: Another point in favor of a diagnosis of Kaposi's sarcoma is that this man is a native of southern Europe.

PHILADELPHIA DERMATOLOGICAL SOCIETY

R. L. GILMAN, M.D., *Secretary*

Jan. 20, 1933

F. D. WEIDMAN, M.D., *President*

SARCOID. Presented by DR. D. M. SIDLICK.

M. M., a colored woman, aged 47, on entering the clinic in May, 1932, presented a doughy, purplish infiltration on the left malar prominence. Except for the relatively depigmented margin about 1/16 inch (about 0.2 cm.) wide, the lesion remained the same. A second lesion on the tip of the nose developed later. The duration of the first lesion was two years.

Roentgen examination of the lungs and of all the long bones revealed nothing abnormal. The Wassermann and Kahn reactions were strongly positive. The results of a physical examination were unimportant. Specific treatment in the form of acetarsone for the syphilis had not improved the cutaneous lesions. A biopsy was refused by the patient. Antisyphilitic therapy had been given twice a week since May.

DISCUSSION

DR. R. L. GILMAN: I offer the diagnosis of lupus erythematosus.

DR. F. D. WEIDMAN: Because of the degree of the erythema, and because it is not so uniformly diffuse as that of sarcoid (it is rather lumpy and in proportion to the area concerned, extends very deeply) I think that there is a possibility that the condition is tuberculosis.

DR. S. S. GREENBAUM: This is an exceedingly interesting case. The patient presents three different types of lesion; the first, on the left cheek, has been mentioned; the second, on the scalp, is an area of cicatricial alopecia, with scaliness

and slight redness; and the third, on the nape of the neck, consists of nodular lesions suggestive of infection by Koch's bacillus. It seems to me that this is a conglomerate picture, and that one diagnosis is not sufficient. The removal of one of the nodules on the back of the neck will show, I believe, a form of tuberculosis. In the lobules of the ear, the patient presents a definite picture of lupus erythematosus. The lesion on the cheek suggests sarcoid to me. In each instance there is a different reaction to the same cause.

DR. R. FRIEDMAN: I should like to call attention to two lesions in the cervical region that are very much like apple-jelly nodules.

DR. D. M. PILLSBURY: I was particularly interested in the lesion on the tip of the nose. It resembled very strikingly those in a case presented by the University Clinic last year, in which a diagnosis of lupus vulgaris was made microscopically.

FIBROMA OF THE EYELID. Presented by DR. D. M. SIDLICK.

G. R., a white boy, aged 6 years, born in America, presented a tumor of the right orbit and eyelid which had appeared at the age of 6 months. Examination of the eye on Dec. 8, 1931, disclosed thickening of the right upper eyelid with no sign of acute inflammation. The ocular conjunctiva was pigmented but not swollen; the corneal surface was hazy. The left eyelid and cornea were normal. The fundi were not examined. A roentgen examination on December 17 showed that the sella turcica was enlarged in both diameters. There was increased intracranial tension with convolutional atrophy and distinct widening of the orbital diameters. The wing of the sphenoid was wider than usual. There was an area of osteolysis of the frontal bone and inner table of the skull just superior to the orbit. There was also an irregular shadow suggesting neoplastic tissue around the area of rarefaction and beneath the inner table of the skull. On Jan. 15, 1932, another roentgen examination was made, with similar findings.

The Wassermann and tuberculin tests gave negative results. The mother had von Recklinghausen's disease.

Biopsy of the right upper eyelid showed fibro-angioma. There were hyalinization and edema.

DISCUSSION

DR. S. S. GREENBAUM: It looked to me as though the conjunctiva were eroded. I wondered what the erosion was due to. The submaxillary glands were very prominent, whether or not owing to a dental condition I do not know.

DR. D. M. SIDLICK: The erosion Dr. Greenbaum mentions is most likely due to the treatment. The child has been treated with radium, the last treatment having been given last Tuesday; that may explain the marked inflammatory reaction there.

DR. F. D. WEIDMAN: The factor of heredity in von Recklinghausen's disease is only one of several that are interesting. We are quite aware by now that the tumors need not be of uniform kind. Although fibromas are most common, one does find lipomas, and I am not surprised to observe an angiomatous condition, as determined histologically, in this child. Roentgenograms of the long bones of this patient were not made; sometimes the bones are cystic. I should like to call attention to a most practical point concerning lesions that have a congenital basis at either of the canthi of the eye; that is, occurring at one of the lines of embryonal closure. The mistake is most serious in those cases in which the lesions are clearcut lymphangiomas (appearing to be cysts in the skin) and in which operation to remove them appears to be rather simple. Experience has shown that in such an operation other and perhaps communicating cysts which were not observed on the surface but which lead down in an interminable way to the posterior portion of the orbit are often found, so that to perform a complete operation would be very formidable. One should therefore not approach such an apparently trifling operation without having a surgeon on hand who will be prepared to undertake, if necessary, an operation which is more formidable than that which the dermatologist

is ordinarily called on to perform. This is not a case simply of the lesion of the eyelid; it is one of the entire constitution of the patient, and these changes in the bones, of course, are immediately of significance in that connection.

URTICARIA PAPULOSA. Presented by DR. C. S. WRIGHT.

M. F., a colored girl, aged 13 years, had had for several years a generalized eruption. She had been a patient at the clinic for congenital syphilis of the Graduate Hospital for about four years and presented this same kind of eruption at the time of her first examination. A diagnosis of prurigo mitis was made by the examiner on the occasion of her first visit. She had a flare-up each year during the cold months, and presented an acute exacerbation of two days' duration at the time of the first examination. The eruption was unusual because of the enormous number of lesions. In addition to this cutaneous manifestation, the girl had Hutchinson's teeth and a 4 plus Wassermann test. Treatment for syphilis had no influence on the eruption. Percutaneous tests gave positive reactions to oats, rye, bananas, cheese and grapes. Presentation was made because of the doubt concerning the diagnosis.

DISCUSSION

DR. E. F. CORSON: I agree with Dr. Wright that the condition looks like one of those severe cases of papular urticaria which, instead of terminating at puberty, are prolonged. In a series reported by Dr. Perlman and me, we included a boy of 16 years who had an eruption similar to this from early childhood. The patient says that she has had this condition ever since she can remember. Most cases are worse in summer. This one, in its seasonal aspect, contradicts the rule. We tested our series of thirty-one patients for food and other substances and were very much disappointed. Only about four patients of the series showed any positive reactions, and only two of them were helped by eliminating the materials found positive.

DR. F. D. WEIDMAN: I saw several deep-seated, shotty vesicles and pustules on this girl's hands and fingers, which prompted the thought that the condition might be dermatitis herpetiformis. Of course, there is not the slightest evidence of grouping in this case, but we know, on the other hand, that when this disease occurs in young persons there are many phases of dermatitis herpetiformis that may be departed from. Hence, I should suggest this diagnosis. I do not think that the condition is lichen urticatus. There are no lesions with definite wheals; there are persistent pigmentations, and I should think that the presence of the vesicular and pustular lesions would rather definitely militate against that diagnosis.

A CASE FOR DIAGNOSIS; LYMPHOANGIOMA CIRCUMSCRIPTUM. Presented by DR. M. MARKOWITZ.

A. S., a girl, aged 8 years, had two years previously fallen on a step, and injured the region of the left hip joint. This was followed by discoloration, and about one and one-half months later many lesions broke out in the bruised area. After the patient was treated for three months by a physician, the condition apparently disappeared. A few months later the cutaneous lesions reappeared and were followed by recurring verruca-like lesions at the site of injury on an area about 4 by 6 inches (10 by 15 cm.).

Roentgen examination of the pelvis and hips on July 22, 1932, showed nothing of importance. Roentgenograms made on August 1, of the thorax and lungs revealed evidence of disseminated tuberculosis. The Pirquet test was negative. The Wassermann test of the blood was negative.

DISCUSSION

DR. F. D. WEIDMAN: I offer the diagnosis of lymphangioma circumscriptum. Very often the lesions of that disease are much firmer than one would ordinarily expect in a lymphangioma. We commonly think of lymphangioma circumscriptum

as essentially fluid, and that the lesions therefore ought to feel rather soft; as a matter of fact, they are often hard. The bluish discoloration is quite in keeping with such a diagnosis; it is a common thing for hemangiomatous disturbances to be associated with those of lymphangioma. The lesions of this sort sometimes follow traumatism; indeed, they sometimes present a zosteriform distribution, which is rather interesting in the light of traumatic zoster, although one cannot follow the line of pathology all the way through.

DR. C. S. WRIGHT: I feel as though this condition cannot be a lymphangioma circumscriptum. Dr. Markowitz tells us that at times the lesions disappear and then reappear later. This is inconsistent with that diagnosis. I have nothing better to offer, however.

DR. D. M. SIDLICK: I believe that the condition is lymphangioma circumscriptum.

DR. J. V. KLAUDER: A biopsy will be necessary to establish the diagnosis. Lymphangioma circumscriptum is characterized by vesicular lesions. In the absence of lesions I do not believe that the condition can be lymphangioma circumscriptum.

DR. JOHN H. STOKES: I agree with the diagnosis and recommend radium. The best results I have seen were produced by gamma radium applied to the deeper lesions. I thought I saw two lymphangiomatous vesicles which I would have sworn were the real thing.

(Sections from biopsy subsequently showed the classic architecture of lymphangioma circumscriptum.)

TUBERCULOUS LARYNGITIS WITH TUBERCULOMA OF THE TONGUE (TUBERCULOUS FISSURE). Presented by DR. V. C. GARNER.

E. S., a colored American barber, aged 48, from the University Hospital, presented a reddish, slightly elevated, dime-sized, granulomatous nodule, with a livid, deep fissure of four weeks' duration at the summit on the dorsum of the tongue near the tip. He had had chronic hoarseness for the past month. Examination of the chest revealed numerous râles, especially over the left upper lobe.

The Wassermann test of the blood was negative.

The laryngoscopic examination with a mirror by Dr. Tucker showed marked thickening of the epiglottis with superficial ulceration on its under surface. The mucous membrane of the larynx generally was beefy red. The vocal cords were thickened, particularly on the right side. There seemed to be some superficial ulceration also in the right side of the larynx. The appearance was more suggestive of syphilis than tuberculosis, although either one might be considered.

A smear from the lesion on the tongue was negative for tubercle bacilli. Roentgenograms of the chest showed diffuse tuberculous infiltration, especially on the left side. The sputum was positive for tubercle bacilli.

DISCUSSION

DR. F. D. WEIDMAN: It is surprising that the tubercle bacillus was not found. If there is any type of tuberculosis in which these bacilli are numerous, it is in orificial tuberculosis. Of course this lesion is only four weeks old and may not have ulcerated sufficiently as yet to bring the bacilli to the surface.

DR. D. M. SIDLICK: Is it a common occurrence to find typical bacilli on smears in lesions of that type?

DR. F. D. WEIDMAN: Yes; that is, if you find them in numbers at all, it will be in orificial tuberculosis; more, it is true, in those with definite ulceration than in this, in which there is only erosion thus far.

I should like to ask Dr. Garner whether or not this lesion developed from the fissure; i. e., whether the infection is superficial or metastatic from the interior of the body.

DR. V. C. GARNER: It was a case of the lesion becoming fissured rather than of the fissure preceding the granuloma.

DR. JOHN H. STOKES: The condition is a typical tuberculous chancre of the tongue, morphologically, the type has been described, and reports have been published. It is usual, as Dr. Weidman said, to find numerous tubercle bacilli; the youth of the lesion is the probable explanation of the scarcity of bacilli in this case.

DR. V. C. GARNER: The lesion was not particularly traumatized to produce the scraping; I merely took a swab from the surface.

DR. F. D. WEIDMAN: Is this a local implantation from the surface or metastasis?

DR. JOHN H. STOKES: The lesions look like local implantations. The first of the kind that I saw were in the Cook County Hospital in Chicago, and in one of the cases there was a definite history of fissured lip, injury to the lip in which this disklike lesion developed, pointing to external origin rather than to metastasis. I once saw one of these lesions, however on the tongue of a man who had no bacilli in his sputum and no pulmonary lesion, but who had extensive plaques of lupus vulgaris and was evidently the victim from time to time of vascularly distributed bacilli, because of the widespread dissemination and clumps of miliary tubercles. The lesion on the tongue was probably hematogenous in origin. It was one like this.

DR. B. L. KAHN: It is my opinion that the tubercle bacillus is not discoverable until the breaking down of the tissues.

ONYCHOMADESIS DUE TO ACUTE LICHEN PLANUS. Presented by DR. S. S. GREENBAUM and DR. J. L. STROUSSE.

A. H., a man, aged 38, presented lesions of lichen planus around the umbilicus and the head of the penis, annular lesions in the mouth and loss of the nails of the hands and feet. Since May (eight months) the nails had all fallen twice and were beginning to fall again.

DISCUSSION

DR. S. S. GREENBAUM: I saw this patient about three weeks ago. The man's chief complaint was that his nails began to fall out in May, coincident with his cutaneous eruption; in a short time practically all of the nails had reformed, and then had fallen out again; they are now beginning to fall out for the third time. In looking the patient over, I found the annular lichen planus on the buccal mucosa and similar lesions on the glans penis, which the patient said had appeared at or about the time the falling of the nails occurred. I think that this condition is a case of involvement of the matrix of the nail by whatever it is that causes lichen planus, with a separation and loss of the nails as a result of this same condition; I am presenting the patient for this reason. I want to add that when I called up Dr. Strousse, who is treating the patient, he said that he himself had found fungi in the nails.

DR. F. D. WEIDMAN: Have any of the other members seen cases of lichen planus which caused onychomadesis?

DR. D. M. SIDLICK: The patient's fingers look like drumsticks and are club-shaped; this in itself would indicate that the condition has existed for some time, and uniform involvement of all the nails would indicate to me that we are dealing with a manifestation of some constitutionally toxic condition. I can hardly see the relation between lichen planus and the cause of this condition of the nails.

DR. JOHN H. STOKES: I have seen many bizarre lesions of lichen planus, but I do not think I have ever seen anything quite like this. I should suspect a lichenoid trichophytid rather than think the whole picture is lichen planus. If

the patient did not have lesions of the mucous membrane I should support such a diagnosis, but if this is a lesion of lichen planus, it is a novelty to me, and I should like to have it studied a little more thoroughly. There appear to be paronychia and drum-stick enlargement of the ends of the fingers, which, together with the complete loss of the nails of the fingers and the toes, sounds rather unusual for lichen planus.

DR. S. S. GREENBAUM: Some of the textbooks mention disturbances of the nails in lichen planus. We have a patient at Mount Sinai Hospital who shows on the nail-bed of several nails what appear to be lichen papules. As far as onychomycosis is concerned, I believe it can be definitely excluded, as it seems impossible that a shedding of all the nails because of a fungus infection of the nail bed, the nail itself or of the matrix can occur twice in eight months.

A CASE FOR DIAGNOSIS. Presented by DR. A. STRAUSS.

L. McG., a man, aged 32, from the Jefferson Hospital, presented an eruption of small, flat, reddish papular lesions covering the entire face, of two months' duration. The eruption had spread from the region of the cheek adjoining the nose to distribution over the entire face. There was no pruritus, the papules had flattened out somewhat more than formerly, and there was no moisture except after shaving.

DISCUSSION

DR. W. O. ROOP: When I looked at the condition, two diagnoses occurred to me as probably of greatest possibility: one, of lupus erythematosus; the other, of acne rosacea. The more I looked at the condition, the more I thought it was lupus erythematosus.

DR. J. M. SCHILDKRAUT: I should be more inclined to diagnose it as lupus miliaris faciei.

DR. C. S. WRIGHT: I have seen two cases almost identical with this and found them both to be extremely persistent in spite of treatment. Dr. Schamberg regarded one of them in a patient of ours, as a tuberculous manifestation, and he made a diagnosis similar to that made by Dr. Schildkraut. I prophesy that this patient will be found to be extremely resistant to therapy.

DR. JOHN H. STOKES: In seborrheic patients with flushed faces and greasy skins a peculiar papular dermatitis not infrequently develops, which is a cross between a papular dermatitis and a sycosis, because you can seldom find pustules, and they are resistant as sycoses of the beard are resistant. But they do respond to treatment, and I cannot say that this eruption constitutes a picture of tuberculosis with which I am familiar.

DR. F. D. WEIDMAN: I thought that it might classify, in sense if not in morphology, as lupoid sycosis. It is in the final analysis not necessarily tuberculous, although the course of the disease may be sluggish. However, the cause is not the tubercle bacillus but micro-organisms, staphylococci and the like, which are of a rather low grade of virulence and do not induce frank production of pus.

DR. A. STRAUSS: I saw this patient for the first time today, and the first diagnosis that occurred to me was verruca juvenilis planus, except for the extreme redness of the condition. There are a great many flat papular lesions and many that occur in streaks. I thought that they were perhaps juvenile warts, red because of the treatment applied, but the patient said that they were like that from the first, and that they had spread from the cheeks and lips up over the face and nose. I did not consider a diagnosis of sycosiform eruption very seriously because of the distribution. There are many lesions outside the bearded region. I thought also of this other diagnosis of some form of tuberculosis.

LUPUS ERYTHEMATOSUS, SEBORRHEAL TYPE AND LICHEN SPINULOSUS. Presented by DR. S. S. GREENBAUM.

P. S., a man, aged 42, presented an eruption on the nose and chin. In April, 1932, he had reported to the skin clinic at the Graduate Hospital with red, scaly patches on each side of the nose and chin, which were diagnosed as lupus erythematosus of the seborrheal type. He had been under treatment in the proctologic department for cryptitis, papillitis and postanal ulcer.

The following treatment for the condition on the face was instituted: intravenous injections of gold and sodium chloride, 1:100 solution, starting with 1 cc. and gradually ascending to 5 cc. From April 31, 1932, to July 8, he had received 64 cc. of gold and sodium chloride, 1:100 solution (fifteen injections). The improvement was not marked. Administration of bismuth was then started. From October 25, to December 19, he had received eight injections of bismocymol, with no improvement. Gold and sodium thiosulphate was then started; after four injections he showed a marked improvement.

The Wassermann test was negative.

DISCUSSION

DR. D. M. SIDLICK: The patient had considerable treatment; that, of course, might have modified the clinical appearance of the cutaneous lesions, but on the basis of the clinical evidence as presented by the patient I am inclined to consider the condition seborrheic dermatitis.

DR. J. M. SCHILDKRAUT: I thought that the case had a seborrheic appearance; it seemed to be scaly. Of course I should think, too, that so much treatment would have caused greater improvement. Would the application of sulphur externally help?

DR. F. D. WEIDMAN: I thought that the infiltration was too deep on the face and that the margins were too sharply outlined for seborrheic dermatitis; these symptoms favor the diagnosis of lupus erythematosus, as does the type of change in those spinous projections on the back. That is, knowing as we do that one of the features of lupus erythematosus is the presence of keratotic accumulations in the hair follicles, these spinous projections in the back would be of the same order as those which we see in outright conventional lupus erythematosus. In furtherance of this idea, may I ask whether the lesions on the back were infiltrated at any time like those on the face?

DR. S. S. GREENBAUM: No. They developed incidentally in the past three or four weeks. I thought that there would be some objection to this diagnosis. When we first saw the patient our diagnosis was seborrheic dermatitis. But he reacted very poorly to the use of the common agents used for that condition, so much so that the condition spread and was very much irritated; we came to the conclusion that it was lupus erythematosus.

I presented him particularly to show the distinct variation in therapeutic effect of different gold compounds. We have seen some cases of lupus erythematosus clear up when therapy with gold and sodium thiosulphate is employed that were resistant to other gold compounds, while other cases will clear up when therapy with gold and sodium chloride is employed, although they will be resistant to another gold preparation. I presented the patient with this particular point in mind, to show that when a case of lupus erythematosis resists therapy with a particular gold compound, it may be worth while to change to another compound.

ACUTE CUTANEOUS INFECTION ASSOCIATED WITH AGRANULOCYTOSIS OR AGRANULEMIA. Presented, with photographs, by DR. S. S. GREENBAUM.

There was a dark red, indurated swelling at the angle of the jaw, which had begun three weeks prior to admission to the hospital (Nov. 24, 1932), as an itching

area which the patient scratched. Swelling had developed in two days. Aspiration gave a dry tap. Incision showed some pus. There was anterior cervical adenitis. The blood counts made from the day of admission were as follows:

Date	White Blood Cells	Polymorphonuclears	Small Lymphocytes
11/24/32	6400	10	84
12/21/32	3200	7	93
12/24/32	2300	8	..
12/28/32	2700	6	94
1/ 3/33	3100	6	94
1/ 5/33	2900	6	94

The Wassermann test of the blood was negative. Blood cultures were negative for Staphylococcus and Streptococcus viridans. Examination on Dec. 20, 1932, showed: vital stain, 9 per cent reticulocytes; oxydase test, 90 per cent nongranulocytes and 10 per cent granulocytes.

DISCUSSION

DR. S. S. GREENBAUM: The point is that perhaps dermatologists, by not making regular examinations of the white cells of the blood in some cases of cutaneous infection with severe systemic disturbances, have missed some of these cases of chronic agranulemia. This is one of the few cases that I know of in which infection of the skin has preceded, or was found to be part of, an agranulemia. The patient feels well. He does not know why we are making such a fuss about him. A week ago there was a slight infection of the finger, and a small amount of pus was removed. With that infection, which would have been of no moment to an ordinary person, the temperature rose to 104 F.; when the pus was removed, the temperature dropped. Chronic agranulemia may be commoner than is generally supposed.

INTERSTITIAL KERATITIS FIRST APPEARING AFTER MERCURIAL INUNCTIONS. Presented by DR. J. V. KLAUDER.

P. K., a girl, aged 9 years, had a year prior to presentation presented a swelling of the left knee joint. A diagnosis of congenital infection was made. The Wassermann reaction was 4 plus. The patient was given inunctions of mercury every other day for almost a year. Soon after cessation of this treatment the initial appearance of interstitial keratitis developed, first in one eye, and soon after in the other. The patient presented many of the stigmas of congenital infection; there was still some fluid in the left knee joint. The condition of the knee joint was regarded as Clutton's joint.

NEW YORK DERMATOLOGICAL SOCIETY

EDWARD R. MALONEY, M.D., *Secretary*

Regular Meeting, Jan. 24, 1933

GEORGE M. MACKEE, M.D., *President*

RADIODERMATITIS. Presented by DR. HANS J. SCHWARTZ.

A man, aged 38, from the New York Hospital and the department of medicine, Cornell University Medical College, was first seen a few days ago. He gave a history of eczema of the hands which appeared thirteen years ago. For a year following the onset of the eruption he received roentgen treatment at one of the

city clinics. Since then he has had about ten years of roentgen treatment—in all, about 250 treatments for each hand. He has had no roentgen therapy for the past two years.

The patient shows marked radiodermatitis of both hands—telangiectasia, atrophy and keratosis. There is an ulcerating lesion at the base of the ring finger of the right hand, which has been present for two years; it is probably a squamous cell epithelioma. The right epitrochlear and right axillary lymph nodes are palpable. He is presented for suggestions as to treatment.

DISCUSSION

DR. BINFORD THRONE: We had this man under observation at the Skin and Cancer Hospital for several months and were unable to do anything for him.

DR. EUGENE F. TRAUB: Treatment in this case will depend entirely on whether or not the involvement of the lymph nodes is of a malignant character. If any of the lesions on the hands are already squamous cell epitheliomas, the problem is to determine, if possible, whether or not the enlargement of the lymph nodes is indicative of an inflammatory reaction or of a carcinomatous metastasis. If it is assumed that the enlargement is nonmalignant, the most dangerous of the lesions on the hands should be removed and plastic repair attempted. I have seen this done in several cases, some of which were managed by Dr. George Semken. The results were all unbelievably gratifying.

DR. BINFORD THRONE: The patients I saw on whom Dr. Semken operated had an involvement of the dorsal surface of the hands only. Dr. Semken removed the entire skin and made a full thickness skin graft. But in this case, in which the palms and the tips of the fingers are also affected, surgical intervention seems to me impossible.

DR. JOHN E. LANE: I do not think that anything can be done except to cut out the painful nodules and the broken-down areas. Amputation of the fingers may be necessary.

DR. H. H. WHITEHOUSE: The condition will probably become malignant, but, as Dr. Traub says, it is possible that the present glandular involvement is inflammatory. I should hesitate to take out the glands. According to the experience that I have had in treating several patients with such conditions, if the tumor is malignant, the patient is liable to die within three months after removal of the axillary glands. I think that the lesion on the right hand, which has been present for two years, is the most menacing. I should try to treat the hand rather than interfere with the glands until it is learned whether or not the involvement is inflammatory. I think that malignancy will eventually develop.

DR. J. FRANK FRASER: I saw the patient the other day and thought that there was sufficient evidence of carcinomatous change in one of the lesions on the hand to justify its removal for microscopic diagnosis.

DR. HOWARD FOX: In such a case it is important to obtain a history of previous roentgen treatment. Instead of regarding the condition as potentially malignant, I should say that malignancy has already occurred. Cases of severe radiodermatitis in physicians who were pioneer workers with the roentgen rays have been frequently seen. In many cases one finger after another has been amputated. I have been surprised, however, to note that the grade of malignancy was not as severe as might be expected; at least, many of the patients have lived for years after the beginning of undoubted squamous cell epithelioma.

DR. GEORGE M. MACKEE: The patient has been badly neglected. I agree with Dr. Traub that the enlargement of the glands does not necessarily indicate metastasis; the condition may be inflammatory. I think that it would be advisable to excise at least one of the glands for microscopic study. If there is metastasis the prognosis is grave but not necessarily hopeless. Assuming that the condition of the glands is inflammatory, the lesions on the hands should receive immediate attention. There is a probable squamous cell epithelioma on the right

hand which should be destroyed at once. An area on the left hand will soon be an epithelioma and should receive immediate attention. The numerous keratoses can be destroyed later. Considerable plastic surgery will be required. If metastasis has not occurred the prognosis is favorable. In the majority of such cases the degree of malignancy is comparatively low.

Dr. J. Frank Fraser: If the axillary node is removed and shows malignancy there is still a chance of preserving the patient's life for several years. I once observed a patient who had malignant arsenical keratosis with involvement of the axillary node. The gland was removed at the Memorial Hospital for the treatment of Cancer and Allied Diseases and showed a frank epidermoid carcinoma but not of high grade malignancy. The patient is still alive, six or seven years after removal of the cancerous node and the primary lesion.

Morphea Guttata. Presented by Dr. Hans J. Schwartz.

A man, aged 36, came to the clinic of the New York Hospital and the department of medicine, Cornell University Medical College, about two months ago because of an eruption on the trunk consisting of a large number of widely separated white macules the size of split peas. He stated that the eruption had existed as long as he could remember. There were no subjective symptoms. There was no thickening or atrophy, but microscopic examination showed that the condition was distinctly scleroderma. A diagnosis of morphea guttata was made.

DISCUSSION

Dr. H. H. Whitehouse: I agree with the diagnosis. The case is rather unusual. One rarely sees an eruption of this type and duration.

Dr. C. M. Williams: The interest in this case lies in the duration of the condition and in the patient's statement that it is stationary. He may have had the disease as long as he states, but that morphea guttata should be stationary for a number of years is not very probable; that the patient has not observed any change is probable. The character of the periphery of the lesions is slightly different from that of the center. In this case one might add to one's knowledge by taking careful note of the extent of the eruption and by watching the patient for a number of years. On account of the location of the eruption, the patient cannot observe it carefully and could not know whether or not it is spreading.

Dr. R. H. Rulison: I saw the patient when he first came to the hospital, and I studied the history carefully. He is sure that he has had the condition since infancy and asserted positively that there has been no change whatever.

Dr. George M. MacKee: The interesting point of the case seems to be the unusual duration of the eruption. Another point is the absence of infiltration. It may be that the infiltration disappeared because of the long duration, leaving a slight degree of sclerosis.

Solid Edema of the Ears and Face. Presented by Dr. Howard Fox.

Mrs. C. W., aged 42, has suffered from recurring erysipelatous eruptions of the face for five years. The attacks recurred at intervals of about six months during the first three years and of three months during the next two years. She has seen numerous physicians at the time of the attacks. A diagnosis of erysipelas was usually made, although at no time was there any rise in temperature, and the patient did not feel ill. The recurring attacks, which usually lasted about eight days, invariably began about the ears, extending over the entire face and at times causing sufficient edema of the eyelids to close them completely. The patient has suffered from "roaring in the ears" for years, which is worse at the time of the attacks.

The process is quiescent at present, and there is a blotchy redness of the cheeks, chin and ears. There are a marked firm thickening of both ears and a

slight thickening and stiffness of the cheeks. The external auditory canals are almost closed by the swelling. The ears are warm to the touch and are bluish red.

There is no history of sensitization to external irritants. The patient uses neither cosmetics nor preparations for the hair. Her hearing is normal, and an examination of the middle ears at the Manhattan Eye, Ear and Throat Hospital showed nothing abnormal. In addition to the eruption described the patient presents marked dermographism. She is well nourished and is apparently in good general health.

A thorough examination was made by the consultation service of Mount Sinai Hospital. The general physical examination showed no abnormalities. The Kahn test gave normal results. Examination of the blood showed 87 per cent hemoglobin and 7,700 leukocytes; a differential count showed 59 per cent polymorphonuclears and 41 per cent lymphocytes. The blood sedimentation test gave negative results. The blood sugar, urine and uric acid were normal. Smears and saline suspensions from the ear showed no Aspergillus. The tonsils were diseased, and there was a small amount of adenoid tissue. Roentgen examination of the nasal sinuses showed them to be well developed and clear.

DISCUSSION

DR. EUGENE F. TRAUB: The diagnosis presented seems the most likely one, but I should suggest an investigation for some outside agent to which the patient may be sensitive. The condition might conceivably be an allergic reaction of bacterial origin due to a focus of infection in the vicinity, such as in the tonsils, the teeth and the mastoid process. The fact that the patient has not had fever with the attacks is a further point in favor of this theory. I have seen a number of cases in which a diagnosis of angioneurotic edema was considered and in which a definite outside factor was found. Preparations for the scalp are particularly likely offenders. All the cosmetics and other preparations used by the patient should be investigated.

DR. JOHN E. LANE: Possibly there may be two distinct conditions: erythema on the face and induration in the concha of the ear. I have never seen this type of induration in the ears except in cases in which there was a pyogenic infection within the canal or in the middle ear. The condition in this patient looks as though it were an old process.

DR. EUGENE F. TRAUB: It is possible that some type of local infection may have produced the thickening.

DR. R. H. RULISON: The outstanding feature is the marked vasomotor instability of the patient. I do not know what treatment should be given, but it would seem that some method of lessening the irritability of the sympathetic nervous system would be needed to effect permanent relief.

DR. WALTER J. HIGHMAN: I think that Dr. Rulison has made a significant statement. The patient has vasomotor instability and dermographism. As the result of constant recurrences of a condition that was once called Quincke's edema, or giant urticaria, the connective tissue thickens little by little without the presence of an infection. All patients with conditions that resemble erysipelas have at least a slight fever. I cannot imagine a patient who has had recurrent attacks of even the mildest form of erysipelas for five years not having had fever occasionally, however low. This patient has dermographism and vasomotor instability. It seems to me that if the proper line of reasoning is followed the inevitable conclusion is that the case is one of urticaria. The way to prove it is by investigations in the field now summed up under that symbol of sapiency, allergy.

DR. BINFORD THRONE: I agree with Dr. Highman.

DR. HOWARD FOX: While I realize that this patient has vasomotor instability, as shown by dermographism, I have never seen any patient with urticaria or angioneurotic edema which resulted in solid edema of the face. This case is similar to others we have seen which have usually been considered to be caused

by recurrent attacks of a streptococcic infection of low grade virulence. While it might be expected that such a condition would cause fever, recorded cases show that such attacks may be, and, I think, usually are, unaccompanied by fever. They are thought to be due to some focus of infection which, however, is so elusive that it is rarely discovered. I recently saw a similar eruption in a physician, which also originated about the ears. In that case treatment with the roentgen rays was followed by a long period of remission.

DR. WALTER J. HIGHMAN: During the next active period an attempt should be made to aspirate and culture serum. The alleged streptococcus may then be isolated.

DR. HOWARD FOX: Dr. Weidler of this city has reported three cases of this disease in which vaccine therapy was used. In one case excellent results were obtained; in another case the results were fair, and in the third case the treatment was a failure.

DERMATITIS EXFOLIATIVA. Presented by DR. EUGENE F. TRAUB.

A boy, aged 2, has suffered from an eruption since the middle of October, 1932. For more than a year the child has had a slight thickening of the palms and soles. The nails are thicker than normal and show a tendency to turn up at the ends. The skin generally was clear until about October 10, when a physician was consulted because of a diaper rash. Following the application of the medication prescribed, a generalized eruption broke out, which has persisted. Because of the appearance of the hands and feet, the marked thinning of the hair of the scalp and the profuse scaliness, the possibility of ichthyosis with secondary dermatitis was at first considered. The urine was examined for lead and arsenic, and as both were found, the mother was carefully questioned. It was revealed that the child had eaten a great deal of the paint on his crib and play yard. Samples of the paint from both these sources were examined for arsenic, as were scales taken from the child. Analysis showed the scales from the abdomen to contain 1.65 mg. of arsenic per hundred grams of dry substance, and the urine, 0.254 mg. The urine also contained 0.095 mg. of lead per liter. Both samples of paint, of course, had high concentrations of lead. No arsenic was found in the paint from the crib, but that from the play yard contained 0.02 mg. per hundred grams of solid substance.

Examination of the nose and throat revealed large, infected tonsils. The child's skin was exceedingly red, as though he had been dipped in boiling water. There was diffuse scaling over the entire body, and in a few areas there was oozing. The palms and soles were much thickened, were covered with scales and in some areas showed a tendency toward fissuration. Local medication gave only moderate relief. The child has improved materially in the last few days while taking tablets of sodium thiosulphate by mouth.

DISCUSSION

DR. C. M. WILLIAMS: I think that in this case the arsenic was probably the cause of the dermatitis. The child has absorbed enough to produce the symptoms. I should like to know, however, why dermatitis develops in certain patients under such conditions and fails to develop in others.

DR. H. H. WHITEHOUSE: I think that arsenic was undoubtedly the cause of the condition. The age of the patient would probably account for its intensity.

DR. HOWARD FOX: It seems probable that the arsenic caused the eruption, particularly in view of the large amount found in the urine and the skin.

DR. BINFORD THRONE: The members of this society know my views in regard to arsenic. I do not think that there is any question but that arsenic was the cause of the eruption in this patient; it is possible that lead is an additional factor. The amount of arsenic found in the patient's urine was eight times the amount which could be considered normal. According to Heller (Die Krankheiten der Nägel, in Jadassohn, J.: Handbuch der Haut- und Geschlechtskrankheiten, Berlin, Julius

Springer, 1927, vol. 13, p. 2), the normal amount which could be found in the skin is 9.7 micromilligrams per hundred grams; in this case the amount was 1,650 micromilligrams. In reply to the statement that sodium thiosulphate has at times proved ineffective in exfoliative dermatitis caused by neoarsphenamine I might say that I have frequently seen such results. The injection or ingestion of sodium thiosulphate was followed by an increase of the edema of the skin and by redness and oozing; the constitutional symptoms resembled vagotonia, and examination of the blood showed the carbon dioxide content to be increased. In this type of case my associates and I have found injections of calcium chloride beneficial. In illustration of this point, I might mention the case of a patient in the Skin and Cancer Hospital at the present time, in the service of Dr. Traub. The patient, a woman, has dermatitis exfoliativa caused by neoarsphenamine. She was given injections of sodium thiosulphate, which did not help her; on the contrary, her condition became much worse. Dr. Traub asked me to see her; I suggested that the amount of carbon dioxide in the blood be determined. The amount present was about 65 per cent by volume. Afenil was then given and her condition has greatly improved. Thiosulphate is positively contraindicated in conditions showing alkalosis.

I have given a great deal of attention to the question brought up by Dr. Williams: why some people exposed to arsenic retain it and show symptoms, and why others do not show any bad effects from it. Examinations which we have just completed in the research laboratory of the Skin and Cancer Hospital showed the presence of arsenic or lead, or of both, in all canned fruits and vegetables and in other canned goods; one popular brand of canned asparagus tips contained an enormous amount of these metals. Everyone is exposed to them. Apparently, if a person is normal they are eliminated, but if one has some trouble such as Dr. Traub noticed in this case (diseased tonsils) the resistance seems to be lowered, and the metal is retained.

I have under my care at present the nephew of a physician, a friend of mine; he is about 27 years of age and is suffering from a sinus infection. Two years ago he had an attack of gastro-intestinal disease associated with dizziness. Last July he had another attack during which he had several fainting spells. This attack was followed by partial paralysis of several cranial nerves and by ataxia and marked delayed cerebration. For a few weeks preceding both attacks he had used an arsenite of lead insecticide on the fruit trees and flowers at his country place in Connecticut. He had also used a lacquer which contained methyl alcohol, a neurotropic poison. A diagnosis of encephalitis and tumor of the brain was suggested. Examination of his urine before the administration of thiosulphate showed a small amount of arsenic and lead; after thiosulphate was given the amount was increased threefold. At present he is well. This case illustrates Stokes' statement that patients with foci of infection are liable to react to the arsphenamines and that the reaction is in direct ratio to the extent and virulence of the infection. In other words, anything that lowers the resistance favors the retention of a heavy metal, which can and does cause symptoms.

In regard to the presence of keratosis in patients who have no history of arsenical medication, I might say that such conditions have been frequently seen. It is probable that the condition is more usual following medication because the amount of arsenic is larger. The reason the palms and soles are affected is, in my opinion, because they have been subjected to trauma; in other words, trauma has reduced the resistance of these parts.

DR. EUGENE F. TRAUB: The case is presented, first, to clear up beyond question any points about the diagnosis and to establish, if possible, the rôle of arsenic and lead in the production of exfoliative dermatitis; and second, for the purpose of calling forth therapeutic suggestions, especially those relative to the removal of the tonsils. I believe that this source of infection should be removed in order to expedite the patient's recovery. However, he still has a slight daily fever, and with the skin in its present condition I wonder whether the operation for the

removal of the tonsils should not be deferred. On the other hand, if the focus of infection is, as I believe, a major factor in the picture, no unnecessary time should be lost in clearing up this source of trouble.

DR. C. M. WILLIAMS: Most surgeons do not like to remove the tonsils while the patient has a fever. I think that the tonsils should be removed after the fever has subsided.

A CASE FOR DIAGNOSIS (LICHEN PLANUS?). Presented by DR. GEORGE M. MACKEE.

A teacher, aged 42, about ten weeks ago accidentally touched her lips with hydrochloric acid and then licked them with her tongue. The white spot now seen appeared soon afterward and has not changed in size or appearance. On the anterior third of the tongue, to the left side of the midline, there is a white patch the size of a quarter, slightly raised from the surface. This is smooth to the touch and is slightly infiltrated. It has caused no subjective symptoms.

Scrapings from the tongue did not show fungi. The Wassermann test of the blood gave negative results. The biopsy section is extremely small. There is some acanthosis at the expense of the rete pegs, which are thickened in the upper portion and thinned in the lower portion, where they are lost in the underlying cutis. In the papillary bodies, as well as in the upper cutis, extending up to and in some places into the epidermis, is a somewhat rather dense infiltrate of cells. The blood vessels of the papillary bodies are dilated in places. The walls of the vessels of the upper corium are swollen. The infiltrate is composed predominantly of plasma cells.

DISCUSSION

DR. J. FRANK FRASER: I am in the same position as the presenter in regard to this case: I am unable to make a diagnosis on clinical or histologic grounds. All I could see was an infiltration with what I believed was plasma cells. A larger section should be examined.

DR. HOWARD FOX: I think that it is impossible to make a clinical diagnosis. The two most plausible conditions would be lichen planus or leukoplakia. I should favor lichen planus, partly because of the appearance of the lesion and partly because leukoplakia is uncommon in women. Statistics covering approximately eight hundred cases, quoted by Cumston, show leukoplakia to be nearly thirty times as common in men as in women.

DR. WALTER J. HIGHMAN: The presence of plasma cells by no means points to syphilis. Plasma cells are found in many chronic inflammations, both specific and general. They are found in lichen planus, lichenification, mycosis and other diseases of the skin. If the bit of tissue that has been excised contains them, I should say that in spite of their presence and because of the general appearance of the specimen the condition is analogous to lichenification of the skin. A variety of unrelated conditions is included under the term leukoplakia; thus, clinically the condition is leukoplakia, and histologically there is every evidence of unusual glossitis. The lesion is unique. Why not imitate the French and describe it by an impressive name, such as glossite plasmocytique?—and, think of it, a new disease!

DR. EUGENE F. TRAUB: Clinically, the lesion impresses me as being lichen planus. The patch is strongly outlined with a peculiar white surface in which the papillae are not affected. There is a slight infiltration in the patch, which stands out clearly from the surrounding tissues. The question of therapy of lichen planus of the tongue was raised by Dr. Bechet, and it is this type of case that ordinarily fails to respond to treatment. On the other hand, in cases in which there are lesions in the mouth in conjunction with acute generalized lichen planus, the buccal eruption usually recedes with the eruption on the body with treatment.

DR. C. M. WILLIAMS: Clinically, the condition looks like lichen planus.

DR. H. H. WHITEHOUSE: From all the evidence, I think that this case might logically be classed under lichen planus; even though there is not much deep infiltration, why not eliminate syphilis of the tongue by giving a provocative arsphenamine test? Unless the test is positive, I should decide on a diagnosis of lichen planus.

KAPOSI'S SARCOMA. Presented by DR. J. FRANK FRASER.

A woman, aged 35, has suffered for ten years from multiple nodular and macular lesions on the trunk and the extremities. She first came under observation in 1931. The histologic picture was that of a blood vascular tumor, showing that the early lesions of Kaposi's sarcoma begin by proliferation of the capillary endothelium.

DISCUSSION

DR. J. FRANK FRASER: I have examined many cases of Kaposi's sarcoma and in most instances have been able to trace the pathologic changes to the capillaries; but when the proliferated epithelium becomes thick it does present the appearance of a markedly cellular fibroma or sarcoma.

DR. WALTER J. HIGHMAN: The clinical picture is unusual, for one rarely sees such dissemination of Kaposi's sarcoma. Usually the starting point is in the extremities, prevailingly in the lower extremities, the lesions extending as time goes on. Histologically, I thought that the accepted point of view was that of a lesion starting with proliferation of the capillaries and of the fibroblasts around them, giving a microscopic picture of fibroblastic sarcoma, for the concept of sarcoma, after all, is relative. A sarcoma is not necessarily highly malignant, a fact indicated by the slow development of malignancy in the Kaposi type—as it were, an accumulating momentum depending on time. It is important to remember that in Kaposi's description the adjective benign has an important place. Ultimately, however, malignancy is established. I do not see why this case is not one of sarcoma. The slides resemble all those that I have ever seen of this condition. Dr. Fraser selected a very early lesion which shows the reorganized histologic structure at this stage, early activity of and about the capillaries.

DR. HOWARD FOX: I do not think that this case looks at all like Kaposi's sarcoma clinically. The patient is a woman, and it is rare to see Kaposi's sarcoma in a woman. It is true that she is Jewish, and most cases occur in the Jewish race. The appearance, distribution and course of the eruption are entirely unlike those of Kaposi's sarcoma. The lesions are not confined chiefly to the extremities (the legs), and they did not make their first appearance at the distal parts of the extremities and gradually travel upward. Furthermore, the condition has existed for eight years or more, during which time, if the disease were Kaposi's sarcoma and the patient were still alive, there would be a much more profuse eruption and a greater tendency for the lesions to coalesce. I also understand that the histologic sections showed no evidence of hemorrhage, which is often present in this disease. I should consider this condition some type of fibroma.

DR. JOHN E. LANE: When was the biopsy performed?

DR. J. FRANK FRASER: Two years ago. I shall do another.

DR. GEORGE M. MACKEE: The lesions are extremely hard nodules, and there are no infiltrated plaques. Clinically, I should not make a diagnosis of Kaposi's sarcoma. The condition looks more like a fibroma.

DR. EUGENE F. TRAUB: Clinically, none of the lesions presented in this case suggests Kaposi's sarcoma. Several lesions on the arms, particularly on the left arm, have a very hard consistency, suggesting a keloid. Other lesions are depressed and seem to be embedded deeply in the tissues. The diagnosis that seems to be the most plausible is that of dermatofibroma.

DR. J. FRANK FRASER: I agree with Dr. Fox and Dr. MacKee that from the clinical point of view this condition does not look like Kaposi's sarcoma. In

making a diagnosis based on the gross appearance of the lesions, I considered multiple neurofibroma and Kaposi's sarcoma; I favored the former, but after seeing the sections I definitely ruled out fibroma. The histologic picture was typical of Kaposi's sarcoma. Dr. Fox has referred to the fact that there was no hemorrhage. There may be hemorrhage in other lesions or in another part of the same lesion. The absence of hemorrhage in a single section is not significant. As to Dr. Highman's suggestion that there is proliferation of fibroblasts outside the vessels, my conception is entirely different. I have followed this patient, as well as others whom I have seen recently, carefully, and I have been able to trace the transition from the earliest changes in the capillaries to the solid masses. The cells in the masses are the same, although they present a different appearance when they are compressed. I admit that they do look much like fibroblasts, and in some cases the picture resembles neurogenic sarcoma. Kaposi's sarcoma, in my opinion, arises from capillary endothelium and is not a fibroblastic sarcoma.

DR. WALTER J. HIGHMAN: Many investigators believe that fibroblasts are derived from endothelial ancestors. I think that they are.

DR. J. FRANK FRASER: I believe that some fibromas are malignant. Recently I saw a case of fibroma in which there were histologic signs of malignancy.

LUPUS ERYTHEMATOSUS. Presented by DR. EUGENE F. TRAUB.

A housewife, aged 30, born in the United States, is presented to show the result of local treatments with gold compounds. When first seen about two years ago, the patient had many typical patches of lupus erythematosus scattered over the face, scalp and chest. Numerous foci of infection in the teeth were removed. Eleven intradermal injections of gold and sodium thiosulphate were made directly into the lesions, with distinct improvement. Because of the large number of lesions, however, it was thought advisable to administer the gold compound intravenously, and about ten injections were given, without much improvement. Twelve intradermal injections were then given, and the areas on the face and the chest and most of the lesions on the scalp healed. The smooth white scars mark the sites of previous lesions.

NEVUS LYMPHANGIOMATOSUS. Presented by DR. HOWARD FOX.

A white youth, aged 17, has had a lesion on the left side of the lumbar region as long as he can remember. It measures about 3½ by 2 inches (8.9 by 5.08 cm.) and consists of a mass of firm coalescing elevations covered with greenish-yellow crusts. At the border are a few solid reddish papules varying in size from that of a pinhead to that of a pea and a few vesicles. On the medial area of the patch the skin is reddish and roughened and shows a few crusted papules. When the patient was first seen two and a half months ago, the elevations were bright red and were devoid of crusts. Underlying the entire area was a nonlocalized elevation which was painful and tender, suggesting a diffuse phlegmon. The swelling, as well as the pain and tenderness, has recently disappeared. Histologic examination of a section taken from the elevated portion showed a lymphangioma.

When first seen this case was strikingly similar to one reported by Hallopeau in "Ikonographia dermatologica," in which there was an underlying phlegmonous process that recurred at intervals.

DISCUSSION

DR. EUGENE F. TRAUB: Reports in the literature relative to the value of roentgen treatment in such cases are at considerable variance. Stokes reported favorable results in a patient whom he treated, and many other authors have made similar reports. However, some textbooks mention that these lesions are fairly radioresistant and that large doses are necessary before a favorable outcome may be expected.

DR. HOWARD FOX: Dr. Trimble reported a case in which good results followed the use of radium, and in Hallopeau's case there was improvement following roentgen treatment.

DR. GEORGE M. MACKEE: In superficial cases a number of cures are reported as a result of treatment with radium. In my experience, a rather large dose is necessary in order to be effective, and there is considerable danger of doing harm. It is not an ideal treatment even in superficial cases, and in safe doses it is almost useless in deep or cavernous cases.

DR. WALTER J. HIGHMAN: Why could not surgical intervention be used in a condition of this kind in such a location? How much time would be required for healing?

DR. HOWARD FOX: Instead of using radium I may refer this patient to the surgeons for excision of the lesion, following Dr. Highman's suggestion.

DERMATITIS ARTEFACTA. Presented by DR. GEORGE M. MACKEE.

A man, aged 38, who was previously shown at the December, 1932, meeting of this Society, is exhibited to show the results of the application of an occlusive dressing. It has been impossible to hospitalize the patient, but the wound has been dressed daily. So far as can be ascertained, the dressings have not been tampered with. There has been a slight improvement during the few days that this type of dressing has been used.

REPORT ON A CASE OF ELEPHANTIASIS OF THE LEG IN A PATIENT SHOWN AT THE OCT. 25, 1932, MEETING. Presented by DR. C. M. WILLIAMS.

Between Nov. 14, 1932, and Jan. 9, 1933, when antisyphilitic treatment was given, the circumference of the leg was reduced from one-fourth to one-half inch (from 0.6 to 1.3 cm.).

Directory of Dermatologic Societies *

FOREIGN

British Association of Dermatology and Syphilology (Canadian Branch)

J. Frederick Burgess, President, Drummond Medical Bldg., Montreal.
B. Usher, Secretary-Treasurer, Medical Arts Bldg., Sherbrooke St., W., Montreal.

Royal Society of Medicine, Section of Dermatology

A. M. H. Gray, President, 30 New Cavendish St., W. 1, London.
W. N. Goldsmith, Secretary, 6, Upper Wimpole St., W. 1, London.

NATIONAL DERMATOLOGIC SOCIETIES

American Medical Association, Scientific Assembly, Section on Dermatology and Syphilology

C. Guy Lane, Chairman, 416 Marlboro St., Boston.
Harry R. Foerster, Secretary, 208 E. Wisconsin Ave., Milwaukee.
Place: Cleveland. Time: 1934.

American Dermatological Association

Fred Wise, President, 200 W. 59th St., New York.
W. H. Guy, Secretary, 500 Penn Ave., Pittsburgh.

SECTIONAL DERMATOLOGIC SOCIETIES

Baltimore-Washington Dermatological Society

Harry M. Robinson, President, 106 E. Chase St., Baltimore.
M. H. Goodman, Secretary, 401 Medical Arts Bldg., Baltimore.

Central States Dermatological Association

Emmett C. Troxell, President, 74 W. Adams St., Detroit.
William G. Saunders, Secretary, 9203 Grand River Ave., Detroit.
Place: Pittsburgh. Time: 1933.

Iowa and Western Illinois Dermatological Association

J. C. Kessler, President, University Hospital, Iowa City, Iowa.
Robert E. Jameson, Secretary, 201 West Second St., Davenport, Iowa.

New England Dermatological Society

Arthur M. Greenwood, President, 416 Marlboro St., Boston.
William P. Boardman, Secretary, 388 Marlboro St., Boston.

Southern Medical Association, Section on Dermatology and Syphilology

Andrew L. Glaze, Chairman, 1928 First Avenue, Birmingham, Ala.
Dudley C. Smith, Secretary, University, Va.
Place: Richmond, Va. Time: November 14-17, 1933.

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* Secretaries of dermatologic societies are requested to furnish the information necessary for the editor to make this list complete and to keep it up to date.

STATE DERMATOLOGIC SOCIETIES

Florida Society of Dermatology and Syphilology

Chairman for each meeting is elected from city in which meeting is held.
Frank Wilson, Secretary, 310 Greenleaf & Crosby Bldg., Jacksonville, Fla.
Place: Jacksonville, Tampa, Miami and place of meeting of state medical society.
Time: Quarterly.

Louisiana Dermatological Society

J. A. Devron, President, 150 Baronne St., New Orleans.
M. T. Van Studdiford, Secretary-Treasurer, 912 Pere Marquette Bldg., New Orleans.

Medical Society of the State of New York, Section on Dermatology and Syphilology

Paul E. Bechet, Chairman, 55 Park Ave., New York.
Herbert H. Baukus, Secretary, 925 Delaware Ave., Buffalo.

Medical Society of the State of Pennsylvania Section on Dermatology

Stanley Crawford, President, 200, 9th St., Pittsburgh.
Robert L. Gilman, Secretary, 1930 Chestnut St., Philadelphia.

Michigan State Medical Society, Section on Dermatology and Syphilology

G. H. Belote, Chairman, 201 S. Main St., Ann Arbor.
A. R. Woodburne, Secretary, Grand Rapids Clinic, Grand Rapids.
Place: Grand Rapids. Time: Sept. 12-14, 1933.

Minnesota Dermatological Society

E. Z. Shapiro, President, 14 W. Superior St., Duluth.
D. D. Turnacliff, Secretary, 407 Medical Arts Bldg., Minneapolis.
Time: First Wednesday in October, December, February and April.

Oklahoma Dermatological Association

William E. Eastland, President, 117 N. Broadway, Oklahoma City.
C. L. Brundage, Secretary, 616 Medical Arts Bldg., Oklahoma City.

Texas Dermatological Society

Everett C. Fox, President, 1719 Pacific Ave., Dallas.
Everett R. Seale, Secretary, Medical Arts Bldg., Houston.
Place: Houston. Time: Fall, 1933.

LOCAL DERMATOLOGIC SOCIETIES

Atlanta Dermatological Society

Francis G. Jones, President, 384 Peachtree St., Atlanta, Ga.
Charles A. Wilkins, Secretary, Medical Arts Bldg., Atlanta, Ga.

Bronx Dermatological Society

Samuel Feldman, Chairman, 1955 Grand Concourse, New York.
Henry Silver, Secretary-Treasurer, 290 West End Ave., New York.

Brooklyn Dermatological Society

Louis J. Frank, President, 1367 Eastern Parkway, Brooklyn.
George F. Price, Secretary, 884 Lincoln Place, Brooklyn.
Time: Third Monday of each month except June, July, August and September.

Buffalo Dermatological Society

Joseph Brumberg, President, 528 Delaware Ave., Buffalo.
William F. Hoover, Secretary, 333 Linwood Ave., Buffalo.

Chicago Dermatological Society

Oliver S. Ormsby, President, 25 E. Washington St., Chicago.
Max Wien, Secretary, 104 S. Michigan Ave., Chicago.

Cincinnati Dermatological Society

Harry L. Claassen, President, Provident Bank Bldg., Cincinnati.
Raymond G. Senour, Secretary-Treasurer, 19 W. 7th St., Cincinnati.

Cleveland Dermatological Society

E. W. Netherton, President, Cleveland Clinic, Euclid Ave. and E. 93d St. Cleveland.
H. G. Miskjian, Secretary, Rose Bldg., Cleveland.

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